the NORTHWESTERN MILLER

THE INTERNATIONAL MAGAZINE
FOR THE GRAIN, MILLING
AND BAKING INDUSTRIES

INSIDE YOU'LL FIND . . .

Charles C. Ingraham Starts New Career

•

Flour Quality and Evaluation

By Reuben B. Meckel

•

What About Air-Tight Storage of Grain?

By Richard T. Cotton

•

Excess Capacity Study (Part X)

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Volume 265 JULY 24, 1961 Number 15

Gold Coin Rye

Americans love real rye bread—but they can't find it today in many of their favorite bakeries.

Are you capitalizing on rye bread in your shop? Remember, for real rye bread, there's nothing like International's complete line of Gold Coin Rye Flours.

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International MILLING COMPANY

GENERAL OFFICES: MINNEAPOLIS 2, MINNESOTA

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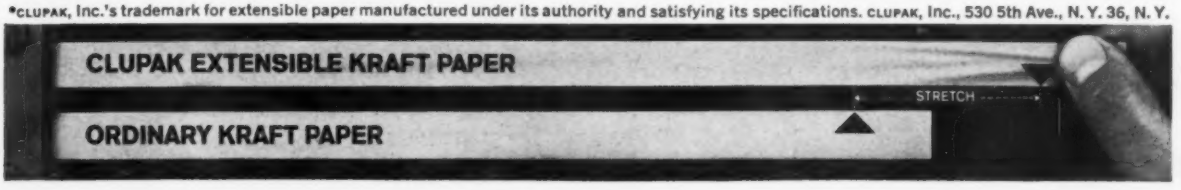

bargain hunter or value seeker... which customer are you?

For Russell Miller-King Midas there's only one kind of flour customer ...a baker who wants to be kept happy. Here's how we keep critical bakers smiling:

The baker buying flour looks for a fair price on an important production ingredient. As sellers, we measure the bargain in responsibility, reputation, product quality and customer satisfaction. These "extras" in every Russell Miller-King Midas flour give you added values you'll never find listed on the invoice. **It starts with the wheat**—selected by specialists for excellence in a variety of flours, and for the ability to produce a wide range of top-notch bakery products. Russell Miller-King Midas elevators have these wheats always at hand—ready to be milled into the dependable, uniform flours you demand. **The qualities we insist on offering bakers** are guarded by continual tests. Tests before wheat is milled... tests during milling... and finally, actual test bakings. This insistence on perfection is a part of the value you get when you buy Russell Miller-King Midas flour. **But our responsibility to bakers doesn't end** with the sale of flour. Technical service is always available... formula analysis, production help and selling aids are a part of the bargain too. So are fair prices and ready availability—including mixed shipments. All these are a part of the bargain we make with bakers. These "extras" have been in Russell Miller-King Midas flours since 1882. And they always will be. That's a value you can count on.

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Milling Division of F. H. Peavey & Company • *Pioneer specialists in milling fine flours*

MINNEAPOLIS 15, MINNESOTA. Millers of Occident, American Beauty, Producer, King Midas, Powerful and other superb Hard Spring, Hard Winter, Soft Wheat and Rye Flours.

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the NORTHWESTERN MILLER®

Published Every Other Week for the Grain, Flour and Baking Industries

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CONTENTS

EDITORIAL OPINION 7
STATISTICS: Increasing Capacity, Wheat Storage—STATISTICS: Extent of Bulk Handling by Mills—The Surplus Is Not a Surplus

AT THE MACARONI MEN'S CONVENTION 11
Durum outlook, and the altered picture resulting from drouth, brought comments from members and their president

THE CHARLES C. INGRAHAM STORY 14
He's embarked on a new career, 'engineering' himself to a different life, this time one of leisure

FLOUR QUALITY AND EVALUATION 21
The successful flour distributor in the years ahead will be the one who sells the highest quality, uniform product

EXCESS CAPACITY STUDY (Part X) 26
Dr. Markwalder continues his analysis of transportation, detailing the procedures and use of water routes

WHAT ABOUT AIR-TIGHT GRAIN STORAGE? .. 46
Is hermetic storage practical? Can it be used in emergencies where conditions are suitable?

'OMNIBUS OR BUST' 66
Catching it brings out a political, professorial Tower of Babel from the New Frontier

CANADIAN COMMENTARY 72
Drouth is the serious subject of the moment, and the Canadians are concerned about measures to combat it

MILLER REGULARS—

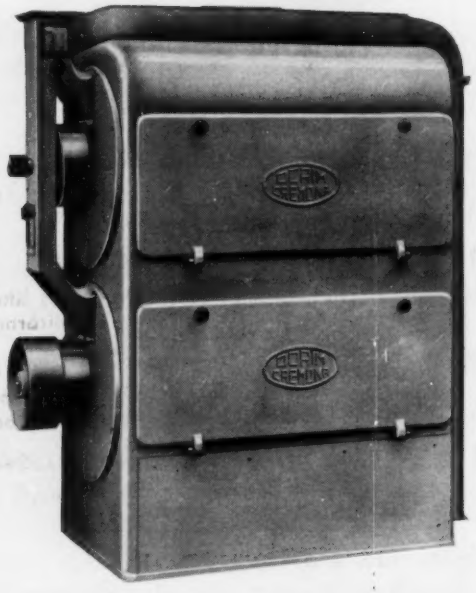
Industry Record 9
Old Dad Fetchit 9
Current Reading 32
Years Ago from THE MILLER's Files 36
Quarterly Index 42
About People 52
New Ideas, Products, Services 56
Flour Production Statistics 60
Where They Are Meeting 70
Index of Advertisers 74
Grist of Grins 74

COVER PICTURE—

It's the time of year when the ageless, exciting cycle of wheat foods begins another round. From the field to the mill to the bakery, and on to whet the palates of the consumers. Whether the tasty, nutritious end product is bread, cake or any of many others, the wonderful work of nature and man is thrilling to behold.

OCRIM

HIGH EFFICIENCY SCOURER type PGD



intensive cleaning of cereal

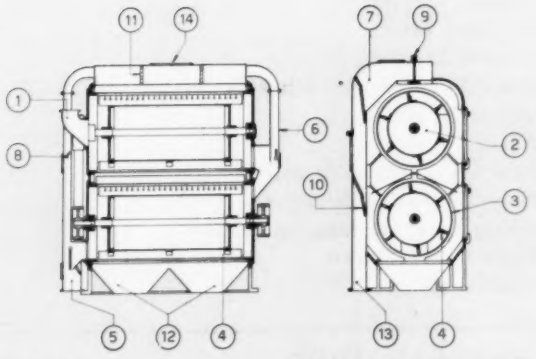
The rotors, fitted on self-aligning ball bearings, are particularly suitable for carrying heavy axial loads.

Special, long-lasting steel agitators and advancement rods have been used to replace the usual brushes which are subject to easy wear.

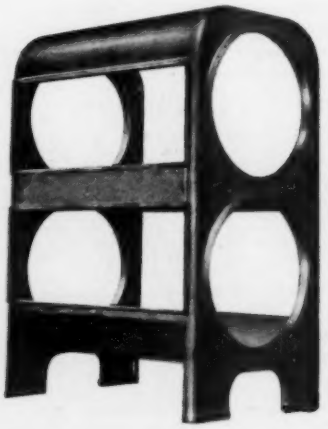
Covers can be made with either ordinary or rolled metal mesh or with pocketed or perforated sheet metal.

The aspiration is active both inside the covers and at the wheat outlets and is adjusted by means of valves.

Expansion chamber equipped with twin valves for grading the various types of screenings according to their weight and volume.



1. Feed inlet
2. Rotor
3. Cover
4. Beaters
5. Stock outlet
6. Connection for exhaust system
7. Expansion chamber
8. Air adjusting valve
9. Depression valve
10. Self-opening flap valves
11. Subdivision into compartments
12. Discharge of grain
13. Delivery of screenings
14. Connection to central exhaust system



D1. Functional and fine line; sturdy construction in cast iron and heavy sheet metal.

OCRIM MILLING ENGINEERING WORKS, Cremona, Italy

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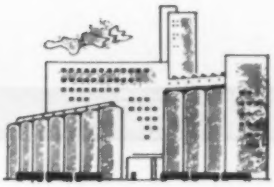
EDITORIAL OPINION



STATISTICS: Increasing Capacity, Wheat Storage

THERE ARE LIES, damned lies and statistics. That statement has been attributed to many politicians and writers over the years and there is some vestige of truth in it. Statistics can be made to prove anything and to point in any direction, up or down, depending upon what the user is trying to prove.

On the other hand, statistics, if they are correctly interpreted and used with caution, play an important and useful part in determining economic trends and developments.

Those operative millers, for instance, patiently operating an aged and outdated plant, noting the acquisition of a new and modernized unit by a fellow craftsman in another firm, may wonder how their companies' plans for the future stack up against the competitor's. Those lacking adequate wheat storage facilities at the mill may conjecture the possibilities of extra space being added on the spare lot alongside the mill. Statistics can provide part of the answer.

And the switch to the bulk handling of flour may prompt thoughts as to how far this development has really progressed among mills in the U.S. The many announcements of the switch to bulk may give the impression that bulk handling is practically universal. Statistics are able to provide the true picture. And the same means provides a look into the future when millers indicate their plans for the next year or so.

In collecting information for a new edition of the LIST OF FLOUR MILLS IN THE U.S. AND CANADA, to be published in the next few weeks as a service to advertisers, it was decided to include some questions in the survey with the aim of providing statistical material that might help with the answers to these questions. These answers, it is felt, will be of considerable interest, not only to grain and milling people, but also to allied firms whose job it is to provide the equipment to meet the projected expansion plans.

The millers responded, as they and their predecessors have responded to requests for information made by THE MILLER for the past 80 years or more, with complete frankness. Their cooperation is gratefully appreciated.

For the purposes of the examination, the responses of 428 firms were examined. They were asked: "Do you plan to increase your 24 hour (daily) milling capacity during 1961 or 1962?" A little over 9% of the respondents say they plan to increase their capacity this year or next. Here is the tabulation (Table I):

Table I

	Number	Percent
Yes, plan to increase capacity	40	9.3
No, do not plan to increase capacity	368	86.0
No answer	20	4.7
	428	100.0

The fact that 40 firms—and some of them are sizeable groups—plan to increase capacity may be interpreted by some as foolhardiness at this time when capacity is allegedly level with or over-running consumption demand. However, it is our interpretation that the reported proposed increased capacity does not stem from an intention to increase capacity for the sake of extra capacity on the part of most respondents, but will be a direct result of plans to modernize the flour milling units concerned.

Obviously, any modernization program, involving the installation of the new and improved machines available from the milling engineering firms today, will automatically increase a firm's capacity in most instances.

Another question asked of the mills was: "Do you plan to increase your wheat storage capacity in 1961 or 1962?" Nearly 17% of the 428 respondents answered in the affirmative. Here is the detailed tabulation (Table II):

Table II

	Number	Percent
Yes, plan to increase storage capacity	72	16.8
No, do not plan to increase storage capacity	338	78.9
No answer	18	4.3
	428	100.0

These statistics are indicative of the progress now being made by the milling industry in improving its facilities. Perhaps it is not enough; in any event, it is a move in the right direction.

STATISTICS: Extent of Bulk Handling by Mills

THE UBIQUITOUS BAG is still king of the American flour trade. Though bulk delivery has made headway, and is continuing to do so, U.S. millers still ship considerably more flour in "packed" form than they do in bulk.

This isn't news. It is a fact well known to the trade. But what proportion of the flour produced actually goes out of the plants in bulk trucks and cars? And how fast will bulk delivery grow in the foreseeable future? These two imponderables prompted THE MILLER to pose a couple of questions when surveying the industry for the new LIST OF FLOUR MILLS.

Again the milling firms were most cooperative in providing the information. The first question was: "About what **percent** of the flour shipped from your mill would you estimate is shipped **in bulk**?" Of the 428 responses to the question, covering nearly all of the 554 mills involved, 120—28%—ship at least some of their flour in bulk. The remaining 72% replied with an unequivocal "None."

And of those 120 shipping in bulk, the answers range from four saying they ship all of their flour in that manner to one declaring it shipped only 1%. The average (median) percentage, it was found, is 30%. For the statistically

EDITORIAL OPINION

minded, a complete tabulation of the responses to the question appears in Table III.

Table III

Percentage of Flour Shipped in Bulk	No. of Mills Reporting each Percentage	Percentage of Flour Shipped in Bulk	No. of Mills Reporting each Percentage
100	4	26	1
98	1	25	6
95	1	23	1
90	1	21	1
75	3	20	10
70	3	18	3
65	1	15	5
60	9	12	1
50	8	10	12
45	2	8	2
43	1	6	1
40	9	5	6
35	4	4	1
34	1	3	1
33	2	2	2
31	1	1	1
30	15	0	308

The 120 affirmative respondents to the question were asked the second question: "Do you plan to increase your percentage of bulk flour shipments during 1961 or 1962?" And the answers show that four fifths of those mills currently shipping in bulk do, indeed, plan to increase their activity in the field. A breakdown of the responses from the 120 mills concerned appears in Table IV.

Table IV

	Number	Percent
Yes, plan to increase	97	80.8
No, do not plan to increase	20	16.7
No answer	3	2.5
	120	100.0

Of the remaining 308 mills not shipping in bulk at present, 26 or 8.4% indicated they have plans to begin such shipments in 1961 or 1962. But the balance of 282 mills remains faithful to the bag and the sack.

Some of the flour going out of the mills in non-bulk form, of course, is destined for overseas. Bulk shipment has not yet made any appreciable headway in the export markets worked by the U.S. millers. It is not for want of trying by the enterprising bulk equipment manufacturers, but the lack of reception facilities at the unloading ports is a nullifying factor. On the other hand, bulk handling of flour is on the upswing in Europe and elsewhere and is likely to continue.

But the day of the bag and the sack is not yet past, nor is it likely to be for a long time to come, our surveyors consider. «

The Surplus Is Not a Surplus

IT IS NOT without significance that wars in Europe always break out in late summer. Remember, if you will, August of '14 and September of '39. Why is this? Simply, good husbanding. The aggressors wait, as they have waited for hundreds of years, for the harvest to be safely garnered.

Nikita Khrushchev won't follow through with his threats against West Berlin until the harvest in the Ukraine is gathered in, or until what little wheat is grown in East Germany is tucked away in the silos.

Adolf Hitler's Nazis stored grain from the middle of the 'thirties onward in dance halls, grain exchanges and movie houses, so important did they consider an ample supply of wheat for man's bread. The British, late starters, did the same in 1938 but they were so tardy, refusing to believe in evil until it was almost too late, they were unable to lay in a sufficient supply of coarse grains to maintain the animal population. The result was that in early 1940 they had to kill off some of their herds.

Many people in the U.S., it must be stated with regret, refuse to believe in evil, too. They are not yet war conscious or conscious of the evil that can be wrought by war. It is not a sign of alarm and despondency to be prepared. European nations are already planning the storage of grains in view of the threats to the security of West Berlin. What good will it do them? Probably very little. Nuclear war could so pollute the grains held in reserve they will be unfit for man or beast.

The U.S. is fortunate in having in its possession an ample supply of grain, a supply usually referred to as the "surplus". That surplus is an insurance against the uncertainties of the future.

Moreover, in so vast a country, with storage locations widely spread, the danger of nuclear pollution is not as great as elsewhere. The people of the U.S. are doubly fortunate in having both a big and a safe reserve, some of it in the hands of government, much of it in the houses of the enterprising private storage industry.

The surplus of wheat in the U.S.—no longer do we have to talk about a surplus in Canada in view of the unsatisfactory harvest there this year—is not a surplus at all. It is, perhaps, more correctly described as a strategic reserve.

Even under conditions of peace, the U.S. has a duty to its customers overseas who are receiving grain under various programs—by direct dollar sales, under Public Law 480 transactions and by straight giveaways.

That human clientele has no hope of an adequate diet without the fruits of the American soil or the work of the American farmer. Thus it would appear that the U.S. must maintain an adequate reserve against emergencies in the form of a big carryover . . . and it is questionable whether the current carryover of around 1.4 billion bushels is adequate in the light of present circumstances.

The persistence of the drouth conditions that have hit the U.S. spring wheat and durum belts this year could deplete the granary to dangerous proportions. Moreover, emergency conditions elsewhere in the world—and that means drouths, storms, floods and other natural hazards as well as war—could ruin harvests to the point where the abundance of the U.S. will be direfully needed.

But more importantly, the government and the private storage industry have in their houses a most valuable bulwark against Communism—an ample supply of grain for the feeding of the world's people and food-producing animals.

The surplus is not a surplus at all but merely an inventory such as all prudent businessmen carry as a service for their customers. «

INDUSTRY RECORD . . .
An account of Trade Affairs and Events

United States:

Negotiations reported for acquisition of Burry Biscuit Corp., Elizabeth, N.J., by Quaker Oats Co., according to joint announcement by **Donold B. Lourie**, Quaker Oats president, and **George W. Burry**, biscuit firm president. Directors of both companies have held meetings, but details of proposal remain for negotiation, subject to approval of boards of both firms, and Burry Biscuit's stockholders. Transaction would be tax-free, with acquisition of Burry's assets by Quaker Oats in exchange for stock of the latter. Approximate ratio would be one share of Quaker Oats common for each three outstanding shares of Burry common, equivalent to approximately $21 million at current market prices. Other details to be worked out, but Quaker Oats would expect to operate company as a division under direction of Mr. Burry, with no changes in operating policies or personnel contemplated. Burry recently acquired Cal-Ray Bakeries, Inc., West Coast firm, with plants at Glendale, Cal.; Tucson and Phoenix, Ariz., and Albuquerque, N.M. Sales of Burry in 1960 were $22,525,874, those of Cal-Ray $7,089,000. Net earnings of Burry were about $736,000, Cal-Ray's about $233,000. Quaker Oats business year ended June 30, but earnings not yet announced. For six months ended last Dec. 31, net income was $7,792,820 on sales of $167,692,744. For fiscal year ended June 30, 1960, Quaker Oats earned $13,523,000, had net sales of $321,843,000.

●

July-May Wheat Flour Exports Tabulated

Regular commercial exports of wheat flour from U.S. for July-May period of 1960-61 crop year amounter to 29,226,406 cwt., reports export department of Millers National Federation. Biggest buyer was Egypt, 8,577,267 cwt., followed by Syria, 2,660,177 cwt.; Netherlands, 1,399,786 cwt.; Bolivia, 1,265,780 cwt. and Vietnam, 1,172,833 cwt., with all others falling below one million hundredweights. Regular commercial exports for May totaled 2,997,094 cwt. Wheat flour exports for foreign relief during July-May reported at 11,579,201 cwt., with Egypt getting 2,214,474 cwt.; Italy 2,090,311 cwt.; Greece 834,466 cwt.; Yugoslavia 831,103 cwt.; Taiwan 617,455 cwt.; Syria 378,812 cwt.; Korea 352,893 cwt.; Poland 323,018 cwt.; Morocco 322,361 cwt. and Portugal 303,722 cwt. Remaining totals all below 300,000 cwt. Foreign relief exports for single month of May reported at 642,139 cwt.

●

Bakery Equipment Firm Purchased at Denver

Rust Sales Co., Denver, bakery equipment manufacturer and ingredients supplier, has purchased Whitson & Langerak Co., also of Denver, long-established in bakery equipment sales and installations. Operations of Whitson & Langerak will be continued by Rust, states **Maurice Rust**, president, although many of its equipment lines now will be handled by the parent firm.

●

Guy W. Burns Resigns As President of Bryo

Guy W. Burns, president of the Bryo Co., Chicago, has resigned to devote his time to other interests, concluding a career of more than 20 years of service with the firm. Announcement of the change, and new Bryo officers, made by **Frank J. Tyler**, executive vice president of National Pectin Products Co., Chicago, which firm recently acquired capital stock of Bryo. New officers of Bryo will be: **Harold W. McGhee**, president; **Dr. Albert J. Leo**, vice president, and Mr. Tyler as treasurer. All three retain present duties with National Pectin, where Mr. Tyler is in charge of operations, Dr. Leo is vice president of research and development and Mr. McGhee heads the company's Pathfinder Division. Of the three new officers, only Mr. McGhee will have his office at the Bryo Co.'s plant.

●

USDA Announces Wheat Support Rate

U.S. Department of Agriculture has announced national average support price for 1961-crop wheat will be $1.79 bu., unchanged from minimum advance support price used in setting county and terminal support rates May 19.

●

Burmese Visitors View Wheat Facilities

Milling executives from Rangoon, Burma, **S. D. Varma** and **U So Nyunt**, recently inspected local wheat processing, shipping facilities in Portland, Ore. Team, representing newest foreign customer for U.S. wheat, visited under auspices of USDA's Foreign Agricultural Service, spent several days conferring with officials of grain inspection service, Commodity Stabilization Service and officers of Grain Export Assn. Burmese visi-

"The other day," said Old Dad Fetchit of the Fish River Roller Mills, "me an' Peg Leg Green was kind of comparin' our costs of making a sack of flour, an' when I come to a place where it showed Peg wasn't payin' hisself no salary for runnin' the business, I up an' said to him he was all wrong an' the servant was entitled to his hire an' so on. 'Well, Dad,' says Peg, 'I allow mebby you're right, but the way this business has been goin' lately I decided a while back I wasn't wuth a gourdful of branch water as a mill manager, an' I jes' up an' fired myself off'n the payroll.' I'll say this for Peg Leg Green, he's honester'n most."

tors also visited with officers of Oregon Wheat League and Oregon Wheat Commission in Pendleton.

●

Appointment Announced By American Bakeries

American Bakeries Co., Chicago, has appointed **Michael J. Curry** as assistant regional manager for its operations in Dallas, Texas. His entire career spent in the baking business, Mr. Curry is known widely in Southwest, with his appointment cited by officials of American Bakeries as additional step in progressive program started several months ago.

●

Dr. Leonard Schruben Returns to K-State

Dr. Leonard W. Schruben, professor of agricultural economics at Kansas State University, has returned to Kansas State following year-and-a-half leave of absence during which period he was economic adviser to Great Plains Wheat, Inc., Garden City, Kansas. As separate activity during leave, Dr. Schruben conducted series of meetings in foreign countries in cooperation with Grain Sorghum Producers Assn., travelled around the world. Resuming duties at Manhattan, he will teach and take over charge of grain and feed marketing research.

●

General Mills to Close Rossford Soybean Plant

Economic factors causing General Mills, Inc., to plan for closing of soybean operations at Rossford, Ohio, in mid-August, with future processing to be centralized at company's plant in Belmond, Iowa, reports **S. D. Andrews, Jr.**, corporate vice president and general manager of specialty products division. "General Mills is basing its future in soybeans on many small volume specialties which cannot be economically produced at Rossford in space available," explained Mr. Andrews.

●

Hearing Postponed For Rye Imports

Public hearing on investigation under Sec. 22(a) of Agricultural Adjustment Act concerning rye, rye flour and rye meal imports, set for July 11, postponed. No other date has been set. Import quotas on products have been in effect for several years. Canada is exporter of rye products into U.S. and quota for 1960-61 is filled.

●

Canada:

Three gravity-operated automatic grain weighing machines being erected at Montreal docks. Equipment constructed by W. & T. Avery of Canada, Ltd., at its plant in the U.K. Machines will have 20,000 lb. capacity for each weighing, will handle 40,000 bu. an hour.

●

Australia:

C. T. Perrett, general manager of Australian Wheat Board, back in Melbourne after visit to China, reports that Mainland China could be market for Australian wheat for years to come if supplies were available. Mr. Perrett reports that Chinese officials state country's standard of living is increasing, will require more wheat than can be produced domestically. However, article in Australian Wheat Board Gazette says it would be too optimistic to expect repetition of fortuitous circumstances giving rise to significant increase in trade in current season.

●

U.S.S.R.:

At start of 1961 there were 7,400 state farms, 45,100 collective farms in Soviet Union. Collective farms cover over 300 million acres of arable land and state farms nearly 170 million acres. Average amount of land under crops placed at over 6,600 acres per collective and 23,000 acres per state farm. Large size of farms, Soviet officials claim, makes it possible to use modern machinery extensively, to apply scientific farming methods and to specialize, in turn enabling farmers to raise output and to cut production costs. Collectives still main producers of farm products, but share of state farms rising from year to year, last year accounting for 43% of grain, 47% of vegetables, 32% of milk, 27% of livestock and poultry purchased by the state. «

SOUSAPHONES are looked upon as pure Americana by the rest of the musical world and to collectors of musical instruments outside the confines of North America they are prizes worth going after. Heinz-Joachim Wilke, commercial sales director of MIAG Muhlenbau und Industrie GmbH., Brunswick, West Germany, is such a collector and his ardent desire was to acquire a sousaphone. But though he scoured the length and breadth of the U.S. on a visit last year he was unable to find one of sufficient antiquity to warrant inclusion in his collection. Then along came George W. Potts, THE MILLER's enterprising advertising manager, with the news that a battered, beat-up example of the sousaphone was lying in a Minneapolis music store, discarded long ago by the municipal band of Cannon Falls, Minn. It was immediately acquired by Mr. Wilke and shipped to Brunswick by officials of MIAG Northamerica, Inc. (The officials, red-facedly, admit it was shipped to Germany under the declaration of "Installation Tools," but add hurriedly that this was a clerical error.) Mr. Wilke is shown playing the ex-Minnesota sousaphone in the amusement room of his home in Brunswick—the room is a replica of an old time German beer cellar. Assisting him with another blow is Ernst Auer, vice president of MIAG Northamerica, Minneapolis, when he visited Germany earlier this summer. «

Durum Shortage, Marketing Trends Covered by Macaroni Manufacturers in San Francisco

DURUM WHEAT shortages and government export subsidies, subjects of high concern to market men and processors as drouth shrinks the current crop outlook, were given close attention at the 57th annual convention of the Macaroni Manufacturers Assn. in San Francisco.

The matter was "laid on the line" by Emanuele Ronzoni, Jr., Ronzoni Macaroni Co., New York, president, in his welcoming address.

"Recent government policy of placing subsidies on exports of durum, thereby permitting most of our carryover to leave the country when a very short crop is likely, places U.S. manufacturers in the same danger experienced several years ago," warned Mr. Ronzoni.

"We are solely dependent on domestic durum as our only source of supply," he reminded the association, adding that "faced with a critical shortage, the macaroni and noodle manufacturers are threatened by a drop in production and consumption to the detriment of the industry, the durum miller and the durum farmer."

In the matter of action to remedy the situation, Mr. Ronzoni informed the gathering that the association already has taken steps to bring the critical situation to attention of the secretary of agriculture and members of Congress.

He spoke also of the increasingly competitive nature of the macaroni and noodle manufacturing business, not only internally, but also because of the many other competitive products in today's supermarket.

'Keep Standards High'

Mr. Ronzoni closed by appealing to those present to work hard to keep industry standards at an all-time high, and to exercise self regulation for the public interest.

Held at the Mark Hopkins Hotel, the convention ranged over an array of subjects from consumption statistics and a panel discussion on marketing, to nutrition and trends in the grocery industry. Afternoons were open for special meetings and sightseeing around the Bay City, including San Francisco's Italian restaurants where pasta products are specialties.

At the first general session delegates heard Richard M. Oddie, director of the Small Business Advisory Service, Bank of America. In his talk, entitled "One Hundred Million Times a Second," he told the convention, "According to coast-to-coast newspaper surveys and pantry shelf audits, macaroni and its allied products are regularly served by 90% of the family groups checked, and the actual product can be found on shelves in two-thirds of the homes checked in test areas.

"In recent years the annual per capita consumption has increased from six pounds in 1947 to 7.3 lb. in 1960. This is a remarkable achievement, particularly in the face of the apparent declines of per capita consumption of other cereal and starch foods," Mr. Oddie said.

He warned that, although research indicates macaroni exceeds the grocery department average so far as return on the dollar invested in inventory is concerned, there is the pressure of new products, which causes alert retailers to continuously reappraise each old product's claim to a share of costly shelf space.

Durum Film Shown

At the second general session, the North Dakota Wheat Commission's film, "Durum—Standard of Quality," was shown.

The film was followed by a panel discussion, "What Women Want to Know," in which wives of macaroni manufacturers from all parts of the U.S. talked of quality, value, packaging, recipes and other details involved in the over-all marketing picture. Theodore R. Sills, public relations counsel for the National Macaroni Institute, was moderator.

Dr. Laurance W. Kinsell, director of the Institute for Metabolic Research at Highland-Alameda County Hospital, Oakland, advised those at the second general session that "the food industry must seek guidance of competent nutritionists to improve the health value of its products." An authority on fats in foods, Dr. Kinsell was first in his field to point out the relationship of unsaturated fats in the diet to serum cholesterol in the blood.

"In the case of foods such as macaroni and spaghetti, it appears desirable that the amount of protein in their composition be increased and the amount of carbohydrate be decreased, thereby further improving their absolute food value," Dr. Kinsell told the macaroni manufacturers. He made the suggestion that housewives should use ample amounts of poly-unsaturated oils in the preparation of macaroni or spaghetti dinners. This can be done easily and will produce highly appetizing meals, according to Dr. Kinsell.

Ralph D. Brown, vice president for industrial and public relations, Safeway Stores, Inc., addressed the final general session on "Retail Grocery Trends." Ralph Frank, Jr., vice president, Lawry's Foods, Inc., and Irv Kotanch, vice president of advertising, Vintners, Inc., spoke on selling of related products. Lawry's, Los Angeles, is one of the largest marketers of packaged spaghetti sauce mix and similar products.

Also on the program were A. L. DePasquale, manager of the durum division, International Milling Co., Minneapolis, and Howard Lampman, executive director of the Wheat Flour Institute, Chicago. Mr. DePasquale reported on the durum situation and Mr. Lampman on the Durum Wheat Institute. Mr. Lampman displayed a new durum wall chart, "Durum Macaroni Foods—From Farm to Table."

On the final afternoon of the convention ladies in attendance were guests at a special tour across the Golden Gate bridge to Sausalito and lunch at the Alta Mira Hotel. «

With their basic wheat product, durum, facing a year of severe shortage, members of the Macaroni Manufacturers Assn. found a key subject for discussion at their annual convention. And their president sized up the critical situation as of suitable significance for coverage in his welcoming address. It wasn't the only topic covered in San Francisco by any means, for macaroni and spaghetti manufacturers have their eyes focused on market trends.

Pillsbury Reports Year of Record Sales, Increased Earnings Due to Expansion, Planned Growth Pattern

The Pillsbury Co. pushed forward with sturdy steps during its fiscal year ended May 31, 1961, expanding activities and products in several areas, all to the tune of record sales and increased earnings.

Paul S. Gerot

Sales climbed to a record high of $384,962,436, a gain of about $11 million, or 20.8%, over the preceding year, while earnings reached $7,911,265, up $1,370,171. As a result, earnings equalled $3.64 a share against $3.04 in 1959-60.

Putting the final fiscal results into succinct words, Paul S. Gerot, president, commented, "These results represent a year of top performance for our company, extending our accumulated growth pattern of the last five years. They reflect gains in each of the three principal areas of our business."

He credited introduction of 16 new consumer products and more than 20 institutional and industrial products to national markets as substantial contributors to Pillsbury's success during the year. Mr. Gerot further cited company management's control of costs and expenses while, at the same time, increasing capital investments and advertising expenditures to counter strong competition.

On the investment side, Pillsbury put some $11 million into modernization and expansion of its domestic plant system through opening of its new flour mill in Los Angeles and a new refrigerated products plant in Denison, Texas, on which engineering work is progressing, plus its Tidy House Products Co., and a potato processing plant in Grand Forks, N.D.

Dividend Raised

In April Pillsbury's board of directors raised the company's common stock dividend rate from $1.40 a year to $1.50, effective June 1. The preferred stock rate remains at $4 annually.

The board also has voted, as its most recent action, quarterly dividends of 37.5¢ a share on common stock, payable Sept. 1 to stockholders of record on Aug. 4. The board also approved dividends of $1 a share on preferred stock, payable Oct. 14 to stockholders of record on Oct. 2.

Pillsbury has earned and paid regular common stock dividends for 137 consecutive quarters. The company had 2,147,465 common shares and 35,715 preferred outstanding at the end of the fiscal year.

• • •

Pillsbury Plant Idled By Union Dispute

A union negotiating team which reportedly has considered itself stripped of power by its union policy committee has kept new contract negotiations from being completed by the Pillsbury Co. and its employees at the firm's plant in Springfield, Ill.

Involved is Local 24 of the American Federation of Grain Millers, with a federal mediator called in when progress on the new contract was interrupted by what appeared to be an internal union dispute.

The strike idled approximately 800 employees of the Springfield plant.

Pillsbury plant officials reported that only minor contract differences remained for settlement when the grain millers notified them that they would walk out upon expiration of the old contract at midnight July 12.

George Kennedy, National Labor Relations Board representative from Chicago, was called into the dispute. Essentially, his view of the situation was that of Pillsbury officials.

Mr. Kennedy issued a statement to the effect that both sides were close to agreement on a new contract when the union issued its "no contract, no work" ultimatum and cited stripping of its powers by the union policy committee as reason for such action. «

Don S. Macgregor New Cargill Vice President

Don S. Macgregor has been elected a vice president of Cargill Grain Co., Ltd., and is being transferred from his present merchandising position in Winnipeg to Baie Comeau, Que., to become manager of the company's operations there.

Mr. Macgregor joined Cargill, Inc., in 1947 at Cedar Rapids, Iowa. He has been a merchant with Cargill, Ltd., in Winnipeg since 1955. «

Milton B. Kihlstrum Presented 25-Year Service Award

Milton B. Kihlstrum, president of the Miller Publishing Co. and former managing editor of THE Northwestern MILLER, was presented a 25-year service award during the company's 58th annual banquet in Minneapolis.

M. B. Kihlstrum

Mr. Kihlstrum was the initial recipient of the award, a new one instituted by Miller Publishing for staff members with 5, 10, 15, 20 and 25 years of company service. In addition to a 25-year service pin, Mr. Kihlstrum was presented a congratulatory scroll signed by members of the company's staff.

Wilfred E. Lingren, advertising director of THE MILLER, and George W. Potts, advertising sales manager, were presented 20-year service pins. Mr. Lingren is executive vice president of Miller Publishing Co.

Paul L. Dittemore, eastern states manager, New York, and Don E. Rogers, central states manager, Chicago, were awarded 15-year pins. Both are company vice presidents.

Other staff members of the company given similar service awards were:

James W. Miller, New York, and James G. Pattridge, Minneapolis, 15-year pins; George E. Swarbreck, editor of THE MILLER; George L. Gates, Carl R. Vetter, Roger S. Berglund and Donald G. Neth, all of Minneapolis, 10-year awards, with periods of service ranging from 10½ to 14½ years; Emmet J. Hoffman, Lawrence A. Long, Richard L. Ostlund, Bruce A. Kirkpatrick, Walter O. Buchkosky and Paul A. Anderson, five-year pins, for service ranging from five years up to almost nine years. «

J. E. Brownlee Dies

J. E. Brownlee, who recently retired as president and general manager of United Grain Growers, Ltd., died at his home in Calgary, Alta., July 15. He was 76, a former premier of Alberta and a widely respected officer of the grain trade. Mr. Brownlee resigned his position with United Grain Growers last June because of serious illness. «

IMPROVED MILL-SANITATION
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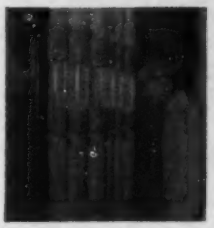

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Charles Ingraham, Engineer, Switches Jobs to Engineer New Life of Leisure

CHARLIE INGRAHAM has embarked on a new career. He is making a business of leisure though, by his own admission, he goes into it comparatively inexperienced. But his associates and friends — the two terms are synonymous—are convinced he will make a success of it, just as he has made a success of his business career.

On July 1 this year, four weeks short of his 73rd birthday, quiet but assertive Charles C. Ingraham stepped down from the presidency of Simon-Carter Co., the amalgam of internationally known firms in the grain and milling industries.

Retirement from active management comes after 37 years of association with Carter-Mayhew and Hart-Carter, predecessor companies of Simon-Carter. And the Simon part comes from the old established and highly reputed British milling engineering firm of Henry Simon, Ltd., with worldwide interests.

The Ingraham association with the Carter companies actually started in Canada. In 1922, the American-born Charles Ingraham established his own firm in Winnipeg to develop Canadian business, operating under the name of Carter-Mayhew Mfg. Co., Ltd. He had a first class background in the field and was able to offer the Canadians a specialized knowledge of flour mill and elevator design, with complete planning for plant and equipment operation.

His experience stemmed from the number of years he had spent in charge of equipment engineering for the Strong-Scott Co. in Minneapolis.

In 1924, Mr. Ingraham was called back to Minneapolis as chief engineer for the Carter-Mayhew Mfg. Co. He sold his Canadian business and directed his energies and engineering talents to the development of an expanded line of separators and graders.

Two moves in 1928 broadened the scope of the company and of the Ingraham operations. Carter-Mayhew merged with the Hart Grain Weigher Co., and subsequently the new company acquired the Twin City Separator Co. with factories in Minneapolis and Winnipeg.

Mr. Ingraham succeeded J. H. Mayhew as vice president and general manager of Hart-Carter's northern division in 1932. In that depth-of-the-depression year management responsibilities were neither light nor easy and he now wryly recalls that this was the only period in his life when he suffered from indigestion. But recovery was faster for Hart-Carter—and for Mr. Ingraham's digestion — than for most companies and their executives. By 1934 the company was again operating at a profit and has continued to do so every year since.

July of 1958 saw the formation of the Simon-Carter Co., consolidating into one organization the northern division of Hart-Carter Co. and the U.S. interests of Henry Simon, Ltd. Mr. Ingraham was elected president of the new company and continued in that position until now, a year in which the company's sales have risen to the highest point in its history.

Mr. Ingraham is one of the grateful beneficiaries of the advances that have been made in electronics. With his hearing impaired since the age of 13, as a result of scarlet fever, his education, including technical training in engineering, was acquired only through patient and painstaking application allied with the patient instruction of his tutors. But they had a willing and apt pupil who would not allow a handicap to stand in the way of his ambition—to be a registered professional engineer.

Predominating in his character, say his associates in Simon-Carter, is an ability to grasp the essentials of a case—and in order to grasp these essentials he insisted that his assistants marshall all the available facts for

PILOTING his own plane in the service of his customers was one of the ways Charlie Ingraham made a name for himself in the grain processing industry. He is seen at left back in 1928 preparing to deliver a replacement part to the Hubbard Milling Co., Mankato, Minn. In the center is the late Frank Bolton of Hubbard and, at right, the late O. K. Mayhew, Carter-Mayhew factory superintendent.

Why call Cargill?

Car lots or cargoes, as a buyer or seller of grain you profit from prompt, reliable, low-cost service. These factors mean solid savings to Cargill customers . . .

Nationwide facilities. With the most extensive system of merchandising elevators in the industry, Cargill offers sellers a consistent market for grain of every class and quality. Buyers get prompt, accurate filling of special quality requirements.

Modern communications. A leased wire system keeps Cargill merchants aware of domestic and world demand and supply—allowing bids and offers reflecting the broadest possible markets.

Transportation. Cargill elevators located on all main avenues of grain transportation—including rail, truck and water—assure handling best suited to your needs.

Research. Advanced research in grain storage, handling, transportation and marketing assures Cargill customers of price benefits from the newest industry advances.

Whether you deal in the largest or the smallest quantities of grain, next time you buy or sell CALL CARGILL.

CARGILL Cargill

200 Grain Exchange, Minneapolis 15, Minnesota

Charles C. Ingraham (Continued)

consideration. Then, speedily, he would give his decision to solve the many problems of either engineering or administration.

And as electronics advanced, so did hearing aids and over the years the Ingraham world has broadened, bolstered by his drive, zest and pioneering spirit.

Charlie Ingraham was one of the country's earliest flying executives. But he was not satisfied to take to the air merely as a passenger. Like all enthusiastic engineers, he wanted to work the gadget for himself. Thus he became a licensed pilot and flew his own Waco bi-plane on company business as early as 1927.

'Rush Delivery'

And that plane became an example of the Ingraham desire to be of service to the customers. On one occasion, he rushed delivery of a replacement shaft for a Carter Disc Separator to Hubbard Milling Co. in Mankato, Minn.

Many of the machines now in use today, and many of the significant improvements in separating, grading, classifying and cleaning equipment can be credited to Mr. Ingraham's inventiveness and creative engineering skills. His 37 years with Carter, Hart and Simon lines have seen a constant broadening of the applications to which basic principles and machines have been fitted. Where early units were virtually tailor-made for flour mill use, models were soon being produced for country and terminal elevators. Then, in successive steps through the years, machines have been perfected to handle cleaning and separating problems for rice processors, the seed industry, peanut growers, vegetable canners, the chemical and plastics industry, drug manufacturers of lozenges and pellets, and handlers of catalyst materials for the petroleum industry.

'Seeing the U.S.A.'

Although almost a complete stranger to the new job of engineering a life of leisure, Charlie Ingraham has a very active and interested partner joining him in the latest enterprise in the person of Mrs. Ingraham. Both have a keen desire to see the U.S.A., and they are already making their plans.

But, just as it was in his presidential days, Mr. Ingraham is faced with decisions, decisions, decisions! The problem, he says, is: "Where to go and what to do first. Maybe we'll start by sampling California. Then, perhaps New England. High on our list, too, are Yellowstone National Park and the Gulf Coast." Certainly, they have a multiplicity of choice in beauty and tradition.

Certain it is, too, that Mr. and Mrs. Ingraham together will complete a blueprint for a future that is mutually stimulating and absorbing. «

Tribute . . .

Emblazoned upon the records of the flour and grain industries and enshrined in the lore of the allied and ancillary industries there have always been great names which is also to say great personalities. The men who have made lustrous the annals and traditions of the breadstuffs world were not all flour millers, or grain men, or bakers. Often they were the indispensable auxiliaries to artificers of the Staff of Life. They provided the machines, devised the processes, envisioned the fruit for which others would labor and from which all would profit. It is not to be wondered, therefore, that they should have their recognized and honored place among the providers of the world's bread, and that not only should they have achieved renown among their professional fellows but that likewise they should have earned the gratitude and acclaim of the men of allied pursuits. Of such great personalities as these is Charles C. Ingraham.

. . . By Carroll K. Michener, Editor-Emeritus

• • •

John Ingraham Named Simon-Carter Prexy

Succeeding Charles C. Ingraham as president of Simon-Carter Co., is John A. Ingraham. He is 42 and a nephew of the retiring prexy. M. L. (Maury) Olson has been elected vice president and will continue as general sales manager. William Kaline has been re-elected secretary with continuing duties as chief accountant and credit manager. John Ingraham is also treasurer of the company.

John A. Ingraham

John Ingraham has been president of Hart Emerson Simon, Ltd., of Winnipeg since 1958. Born in Canada of American parents, he served with the U.S. Army in Europe during World War II and enjoys the unique distinction of being both a U.S. and Canadian citizen.

Educated at the University of Minnesota, John joined the Hart-Emerson company in 1948, becoming general manager and chairman in 1955. He will continue as president of Hart Emerson Simon, Ltd., while heading the operations of Simon-Carter Co. «

M. L. Olson

William Kaline

HOW TO STORE AN INSECT BARRIER WITH YOUR GRAIN

Premium Grade Malathion protects stored grain against insects for a year or more ...for less than 1/5-cent per bushel

Malathion is a powerful grain protectant (not a fumigant). It should be used to protect the mass of stored grain — keeping clean grain clean — or, in a surface application, to protect fumigated grain.

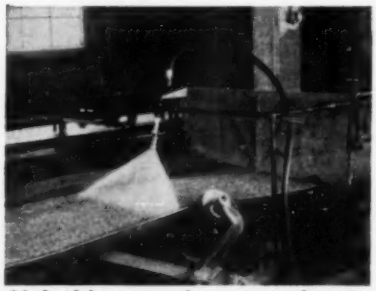
Long-term, wide-range protection...at low cost

For less than 1/5-cent a bushel, Premium Grade Malathion protects your grain—for a year or more—against a wide range of important grain insects. They include: Indian meal moth, confused flour beetle, sawtoothed grain beetle, granary weevil, rice weevil, rusty grain beetle, lesser grain borer, and flat grain beetle.

How to protect grain mass with Premium Grade Malathion

As a spray — For the protection of stored grain such as wheat, oats, rough rice, corn, rye, barley, grain sorghum, and unshelled peanuts, apply 1 pint of Premium Grade Malathion 57% emulsifiable liquid in 2 to 5 gallons of water to each 1,000 bushels of grain.

Field and garden seeds can be protected with ½ pint of Premium Grade Malathion emulsifiable in 1 to 2½ gallons of water for each 500 bushels of seed.



Malathion can be sprayed onto grains as they are elevated into storage. Nozzles should be shielded against wind currents to minimize spray drift losses.

Apply the spray as grain or seed is being loaded or turned into storage. Any standard applicator which can be calibrated to deliver a known volume of liquid is suitable for spraying Premium Grade Malathion.

How to protect grain surface with Premium Grade Malathion

As a spray — To protect the surface of stored grain from attack by Indian meal moth, apply Premium Grade Malathion 57% emulsifiable liquid at the rate of ½ pint in 1 to 2 gallons of water for each 1,000 square feet of grain surface area. Apply the spray evenly, immediately after grain is loaded into storage.

As a dust — Apply 1% dust to the surface at the rate of 30 lbs. for each 1,000 square feet of area. Apply evenly, immediately after grain is put into storage and after turning.

Use a program

1. *Storage cleanup* . . . before grain goes in, spray with Premium Grade Malathion.
2. *Fumigation* . . . apply Cyanogas G-Fumigant *as* grain goes into storage, or Liquid HCN *after* the grain is in storage. In both cases, Premium Grade Malathion should be applied to the surface of the stored grain to prolong the effect of the fumigation . . . especially in the top layer of grain.
3. *Long-term protection* of grain mass and surface. When grain is clean as it comes into storage, Premium Grade Malathion should be applied to the grain stream to *keep* it clean. In addition, the grain should be "top-dressed" with Premium Grade Malathion for protection of the critical surface area.

Special advantages of Premium Grade Malathion

Besides wide-range control and low cost, Premium Grade Malathion, applied according to directions, has:

- Low toxicity to man and animals
- No effect on grain germination
- No effect on baking and milling properties

Note: Only those formulations using *Premium Grade* Malathion may be used on or around stored grains.

Premium Grade Malathion on stored grains . . . for grain that comes out of storage as clean as it went in.

The label instructions on Cyanamid products, and on products containing Cyanamid ingredients, are the result of years of research, and have been accepted by Federal and/or State Governments. Always read the labels and carefully follow their directions for use.

CYANAMID

MALATHION

INSECTICIDES

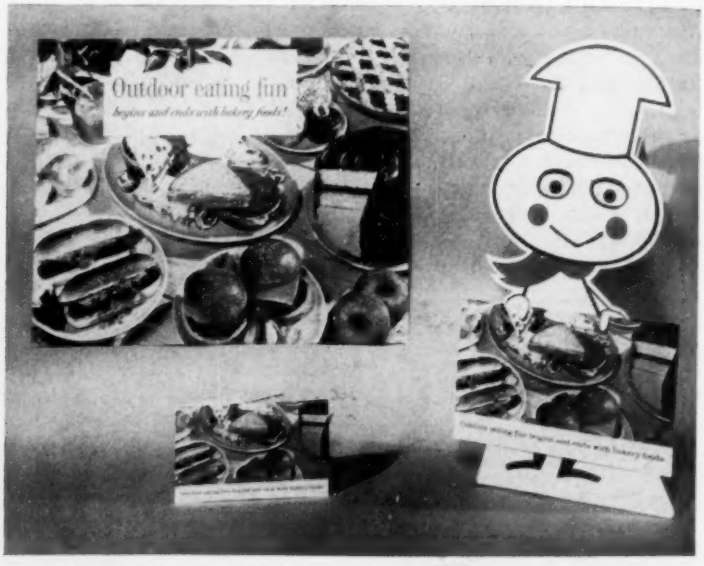
CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

Promotions Boost Baked Foods Buying

BAKERS CAN promote outdoor eating with a "Carry Cake" promotional kit offered by the Pillsbury Co. The kit includes this display, suitable for floor or counter, plus formulas, advertising mats, window streamers, counter cards, shelf talkers, lapel badges and special sales coupons. The "Carry Cake" is an oven-finished cake baked in a foil pan protected by a transparent cover. It can be packed easily in a picnic basket and provides the baker an additional product to promote along with sandwich and wiener buns and other picnic supplies.

MEMBERS OF THE Minnesota Twins baseball team receive some fancy equipment they won't play with—but it provides tasty eating. They're being given cakes shaped like mitts and gloves made by home economists of General Mills, Inc. Left to right are Helen Hallbert, director of GMI's Betty Crocker Kitchens; Genevieve Pagano, home economist; Pedro Ramos, Twins pitcher; Jim Lemmon, outfielder; Clyde McCullough, coach; Earl Battey, catcher; Mary Wright, GMI home economist, and Hal Naragon, catcher.

PUT YOUR "donuts" in this "Fresh Donut Department" is the newest recommendation from DCA Food Industries, Inc. The department, designed so that it doesn't take space from other products in the store, is a vertical section two feet wide to keep all types of "donuts" together. DCA will provide a poster mounted on a flexible wire frame to identify the section.



THIS BOOKLET on outdoor eating has been prepared for bakers by General Mills, Inc., to promote such favorites as sandwiches, "no-fuss desserts" and specialty bread treats. The four-page booklet also contains some handy tips for outdoor eating and menu ideas which bakers can pass along to their customers. Also available as part of General Mills' summertime promotion is a poster featuring bakery products for outdoor eating and a full-color card for the "Baker Boy" easel now being used by bakers.

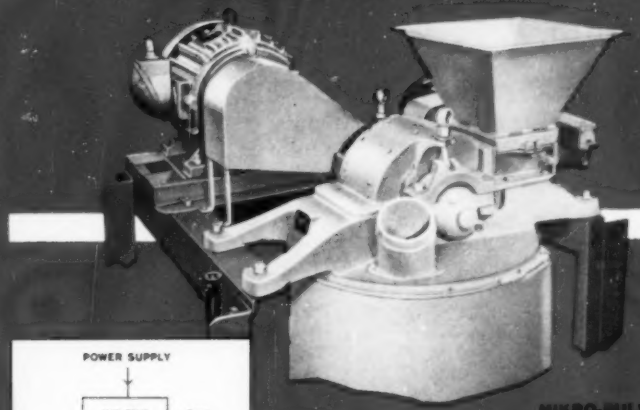
Economize!

AUTOMATED...GRINDING AT MINIMUM COST...

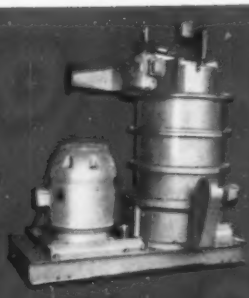
with the

NEW MIKRO-MONITOR

Automatic Load Control • Specifically Designed

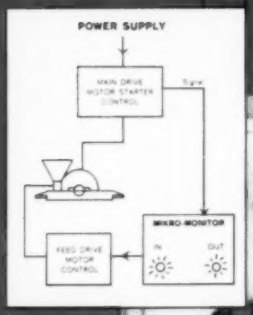


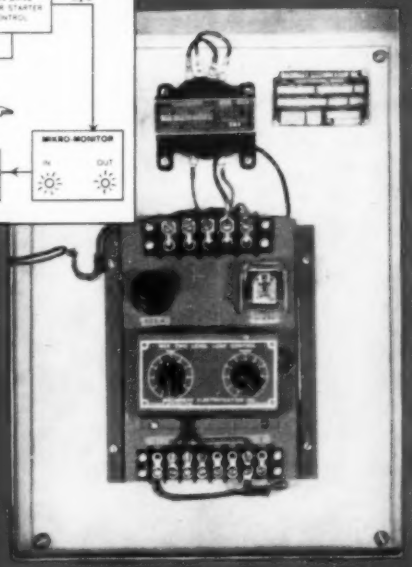
MIKRO-ATOMIZER



MIKRO-PULVERIZER

MIKRO-BUD





The MIKRO-MONITOR is housed in a compact 12" x 6" x 17" steel wall cabinet, with pilot lights on cover to indicate flow conditions.

- **Increased output up to 25 per cent.**
- **Constant operation.**
- **Virtually no supervision.**

Designed to prevent overloads automatically, by off-on control of the feed motor as a function of the main motor load, the MIKRO-MONITOR assures uninterrupted processing and greatly increased production. Easily installed, the new unit was developed specifically for use with the MIKRO-PULVERIZER, MIKRO-ATOMIZER and MIKRO-BUD, allowing any of these units to be operated for long periods without supervision. Up-date your present Mikro equipment! Write for details on the MIKRO-MONITOR.

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Flour Quality And Evaluation

Bakers Demand Quality, the Millers Provide It . . . and the Distributor Should See That There Is Understanding on Both Sides.

By REUBEN B. MECKEL

WE HEAR MUCH these days of a "new horizon" in science, government and world affairs. Believe me, these coming years of the 1960's will also bring a "new horizon" in the business world, and this group will meet and share that "new horizon."

Reuben B. Meckel

You, as flour distributors, will seek not only to better supply your users with flour, but to better counsel them as well—to give them that little "extra plus" which often is the difference between success and failure in a business enterprise.

In our suburban area there is a little group of university girls highly successful in a baby sitting enterprise. Why are they successful? Because they have gained community confidence with a little of that "extra plus" in service. Their slogan reflects the job they are doing: "Leave your babies and their formulas with us—we feed 'em, burp 'em and tuck 'em in."

It seems they've sold the mothers.

Performance Factors

There are many questions in the mind of our customer, the baker, regarding flour quality and its evaluation. First, let's look at the matter of flour quality. What factors are important in determining the baking performance of flour? Take a look at Table I on page 22.

These analyses are, of course, typical for the crop year of 1960-1961 and change from one crop year to another. Also, they cover only a few of the many spring and Southwestern flours on the market.

What information have we on this table?

We have listed spring wheat flour, with ash and protein percentages on short patent, medium patent, standard patent, and first clear flours.

Right below we have Southwestern flour with the same information.

Can we, from the information in this table, tell whether or not these flours are of good baking quality? In the absence of further information, of course, we can not.

Is the flour ash figure important? Of course it's important to the mills. The mills are not just spinning their wheels making ash determinations. To them these figures are a guide in extracting the endosperm of the wheat kernel into desired fractions.

To the baker, small differences in ash percentage usually mean little. In fact, he may at times be able to obtain a better baking quality flour with a little higher ash figure than the flour he is specifying with a lower ash figure. Would it then be in his interest to insist upon the lower ash figure? I think not.

Sometimes we hear the suggestion that the ash figure on a bakery flour be lowered to a shorter extraction, to obtain a mellower flour with shorter mixing requirement. For instance, drop the ash from .43% to .40%. This is not the answer to the problem. In such a case the real source of mellowness, or an altered mixing requirement, lies in a different wheat mix, from which the flour would be milled. The miller must select the proper wheat mix.

Turning to protein, I think the question asked me most often over the years by the baker has been, "What protein level do you think I need in my shop?"

Always I have been reminded of Abe Lincoln's dry humor when a would-be wit asked him, "Abe, how long should a man's legs be?" And Lincoln promptly replied, "Long enough to reach the ground."

What protein level flour should we supply the baker? The answer is a protein level which will do the job in his particular shop.

Proper Quality Protein

And that is only part of the answer to the real question. The protein must also be of the proper quality to do the job in his shop.

In other words, we must always be mindful of two factors when considering the effect of protein on flour quality:

1. **quantity of protein.**
2. **quality of protein.**

Since the coming of good, high-speed mixing equipment in recent decades, we have been able to get along in wholesale bread production with relatively lower protein flours because we are able to fully develop them and get the most out of whatever protein there is in the flour.

In recent years we have experienced counteracting factors in the field of bread production, such as high sugar percentage in the formula and mechanical handling of proofed bread, which require a little higher protein level in the flour than was necessary without these factors in operation.

As indicated before, protein quality

The successful flour distributor in the years ahead will be the one who sells the high quality, uniform flour which today's modern, scientific milling industry puts into its products. In fact, the successful distributor will see that he gets just that high quality—for the baker wants it, and he's willing to cooperate. Mr. Meckel is manager of baking technology for the International Milling Co. His address was presented to the 42nd annual convention of the National Association of Flour Distributors in Pittsburgh.

depends primarily upon the wheat mix selected by the miller.

Let's look at Table II.

A good quality spring and a good quality Southwestern flour will, of course, both perform well where they fit into bakery production. Comparative differences between the two may vary from one crop year to another. Over the years, however, the baking industry has become aware that good spring flours have an outstanding tolerance to mechanical abuse in the shop.

Also, many bakers find that spring wheat flours produce a characteristic loaf texture which gives them the type of crumb body and shelf life they desire.

In recent years our Southwestern flours have been relatively good in baking quality. Mixing requirement has not been critical as it was in earlier years, and mixing tolerance has been improved. Much of the improvement in the baking quality of our Southwestern flours is due to progress in the wheat variety picture.

Perhaps before going on we should pause a moment on high protein spring wheat flours, which are used mostly for certain types of hearth bread and hard roll production.

These flours usually contain a high percentage of excellent quality protein and are capable of producing large volume products. High protein wheats cover a wide range of quality. For this reason it is necessary to make a careful selection of the best quality wheats in the milling of these flours.

In this segment of the baking industry, where high speed mixing equipment is not yet so universally used, these flours are capable of making large volume products even where mixing equipment is not able to fully develop the doughs.

They also possess excellent mechanical tolerance.

Flour treatment affects flour quality. Let's say a few words about this.

Unless otherwise specified by the baker, the miller will treat his flour with malted wheat flour or malted barley flour to a level where it will perform well in the shop.

Addition of Bromate

For some types of flour, addition of a small amount of bromate is beneficial. This is true usually for hearth type breads.

Some bakers want a little bromate on pan bread flours, but usually the use of ordinary yeastfoods supplies all the bromate that is needed.

We have now discussed flour quality so what about evaluation of it for the baker?

TABLE I

Typical Analyses Crop Year 1960-1961

	% Ash	% Protein
SPRING WHEAT FLOUR		
Short Patent	0.40	12.20
Medium Patent	0.43	12.50
Standard Patent	0.47	12.90
First Clear	0.67-0.72	14.50-16.00
SOUTHWESTERN FLOUR		
Short Patent	0.41	11.70
Medium Patent	0.44	12.00
Standard Patent	0.47	12.10
First clear	0.68-0.72	13.50-15.00

The best test of flour quality for the bakery is, of course, the baking test.

The closer we can come in our testing to actual commercial scale operations under carefully controlled conditions, the better. Commercial-type baking tests employing machinery such as that used in the customer's bakery will, of course, reduce the number of samples which can be tested in a day, making the testing more expensive. But we find it useful as a final check on the baking performance of flours.

Small scale baking tests, making only a small number of loaves, also give valuable information on the baking quality of flour. Many more samples can be tested in a single day and more variables can be checked in less time.

This brings us to a few of the tests most widely used to supplement the baking test in evaluating flour quality. These supplementary tests are useful if we are realistic in using the results obtained with them. If we are not realistic, we may be needlessly alarmed by figures which should cause no concern.

Two tests which measure the potential diastatic activity of flour are the Pressuremeter test and the Amylograph test.

The Pressuremeter test measures the millimeters of mercury recorded by gas production during a given number of hours, from a small flour, water and yeast dough. This test is useful if we allow the proper tolerance in reading our Pressuremeter figures.

For example, if we specify a single figure of 550, we should in most cases allow a plus or minus of 50 from that figure. In other words, a Pressuremeter range of about 100 millimeters for any given level of diastatic activity so measured should be regarded as satisfactory uniformity in terms of baking results.

Viscosity Measurement

The Amylograph (or Viscograph) measures the viscosity of a flour-water dough medium at elevated temperature such as is encountered in the oven.

Here, should we again specify a single Amylograph figure, for example of 550, we should then regard a

TABLE II

Skeleton Outline, Selected Wheat Mixes

SPRING WHEATS

Wheat Mix

1. Regular Spring Flours—relatively long mixing requirement
2. Mellow Spring Flours—shorter mixing requirement
3. Intermediate High Protein Spring Flours—relatively long mixing requirement
4. High Protein Spring Flours

SOUTHWESTERN WHEATS

1. Regular Southwestern Flours—medium mixing requirement
2. High Protein Southwestern Flours—slightly longer mixing requirement

SPRING WHEATS and SOUTHWESTERN WHEATS

1. Spring-Southwestern Blend Flours—medium-long mixing requirement

Keep Faith With Nature—Guard Her Goodness

This miller's wheel no longer turns . . .

Today the watermill is a curiosity. Today's demands must be met with today's methods. But modern milling practice loses some of the nutritional benefits present in nature's wheat, because consumers demand a white product.

Millers, bakers, macaroni makers keep faith with nature by enriching their products. This reasonable idea—in use now for 20 years, a whole generation—restores these valuable, health-giving nutrients to foods processed from grain: vitamin B_1 (thiamine), vitamin B_2 (riboflavin), niacin (another "B" vitamin) and iron. Vitamin D and calcium may also be used. Calcium is required in enriched self-rising flour.

From Roche research and immaculate Roche manufacturing plants, pure, low-cost enriching ingredients for white flour, white bread and rolls, macaroni products, corn meal and grits, white rice, and farina have come for years since the start of enrichment. Roche joins in the 20th Anniversary salute to those food processors who help us all to better health through enrichment.

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figure in the 450 to 650 range as satisfactory.

Another supplementary test is made with the physical dough testing instrument known as the Farinograph.

The results obtained from this instrument sometimes serve a useful purpose if we keep in mind the following qualifications:

1. Farinograph results do not consistently agree with what actually happens in the bake shop.

2. There is a difference in results obtained on the same sample from "different" Farinograph machines:

For example:

In Absorption—as much as 4.0 percentage points.

In Mixing Time—as much as 1.5 minutes.

In Mixing Tolerance—as much as 25 units.

In other words, you might receive a Farinograph absorption figure of 63 from one laboratory and 59 from another on the same sample.

3. Results on the same sample and on the same Farinograph machine may vary.

For example:

In Absorption—as much as 1.5 percentage points.

In Mixing Time—as much as 1.5 minutes.

In Mixing Tolerance—as much as 15 units.

A FLOUR MILL has been started up by the Nisshin group at Sakaide, Japan. The mill, pictured in the upper photo, is equipped with machinery designed and installed by MIAG of Brunswick, West Germany, and has a capacity of approximately 3,000 cwt. flour, basis 24 hours of operation. MIAG supplied wheat conditioners and roller mills. The latter, shown in the lower photo, have hydraulic-automatic controls. Sakaide is on the island of Shikoku, 11 miles west of the manufacturing center of Takamatsu.

Now we have discussed briefly flour quality and some of the avenues open to us in its evaluation. What then does it all boil down to for us?

'Baker Has Own Ideas'

Each baker has a set of equipment through which his doughs must be processed, and he has his own ideas of the type of bread he wants to make. So far as he is concerned, a flour has good quality only if it works well in his shop, and produces for him the type of products he wants for his market.

Where then does the answer lie? It lies in familiarizing yourself and your miller with the flour quality requirements of his shop.

Your miller has had years of experience through crop after crop. He has followed the development of formulas and procedures and the changes in machinery from year to year. Once familiar with your customer's production, he is qualified to recommend the flour that will work best in the bakery.

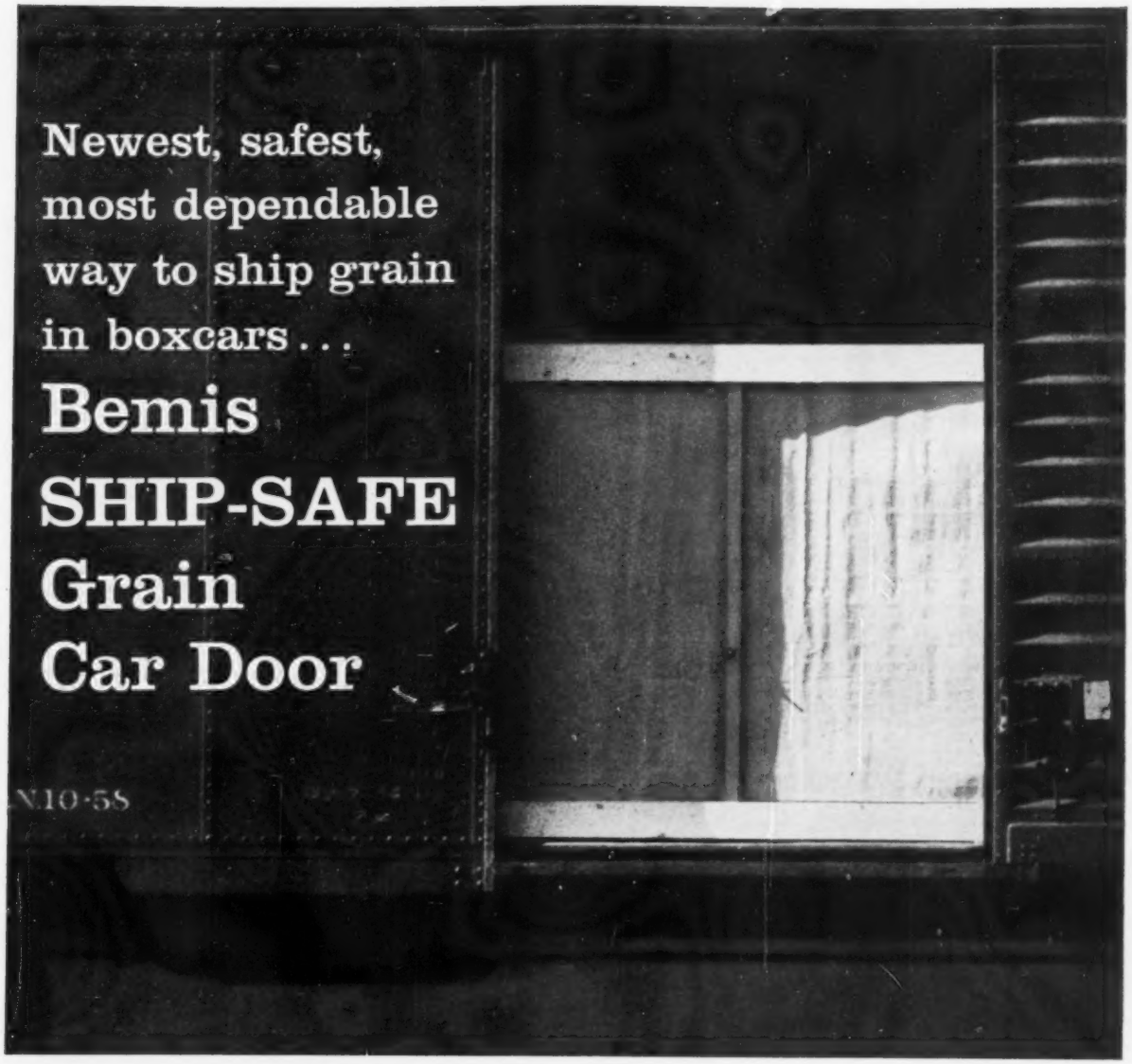
A trial shipment of appropriate size, to confirm your estimate of the shop's requirements, will often lead to exactly the right choice of flour quality for later shipments. The baker will cooperate—he is really a pretty nice fellow, and he wants the right flour in his bakery.

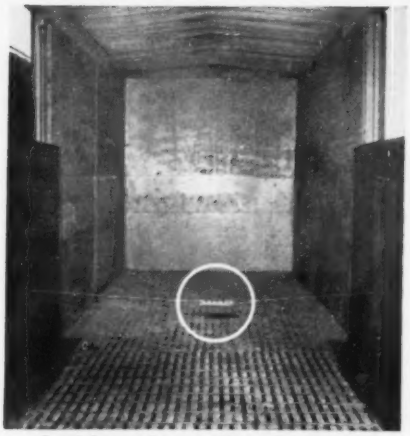
The successful flour distributor of the years ahead will see that he gets it. And his success will be assured if he sells the high quality and uniformity which today's modern, scientific milling industry puts into its flour. «

Utah Firm Expanding Production of Pies

Sorority, Inc., a comparatively new firm at Salt Lake City, has broken ground for a building to produce frozen pies and other food products. W. G. Evans, president, states that the new facilities will enable centralization of his firm's pie production, and that it plans to expand nationally.

The company was formed six years ago to manufacture automatic pie machinery, incorporated under its present name three years ago, and uses its own patented automatic pie machinery capable of making and filling up to 7,200 pies an hour. In its new plant, Sorority will produce, freeze and ship pies in carload lots to subsidiaries in Denver, Omaha, Chicago and Calgary, Alta., Canada, where they will be cooked, packaged and delivered to wholesale outlets. The firm also plans to franchise its operations to other bakeries, said Mr. Evans. «





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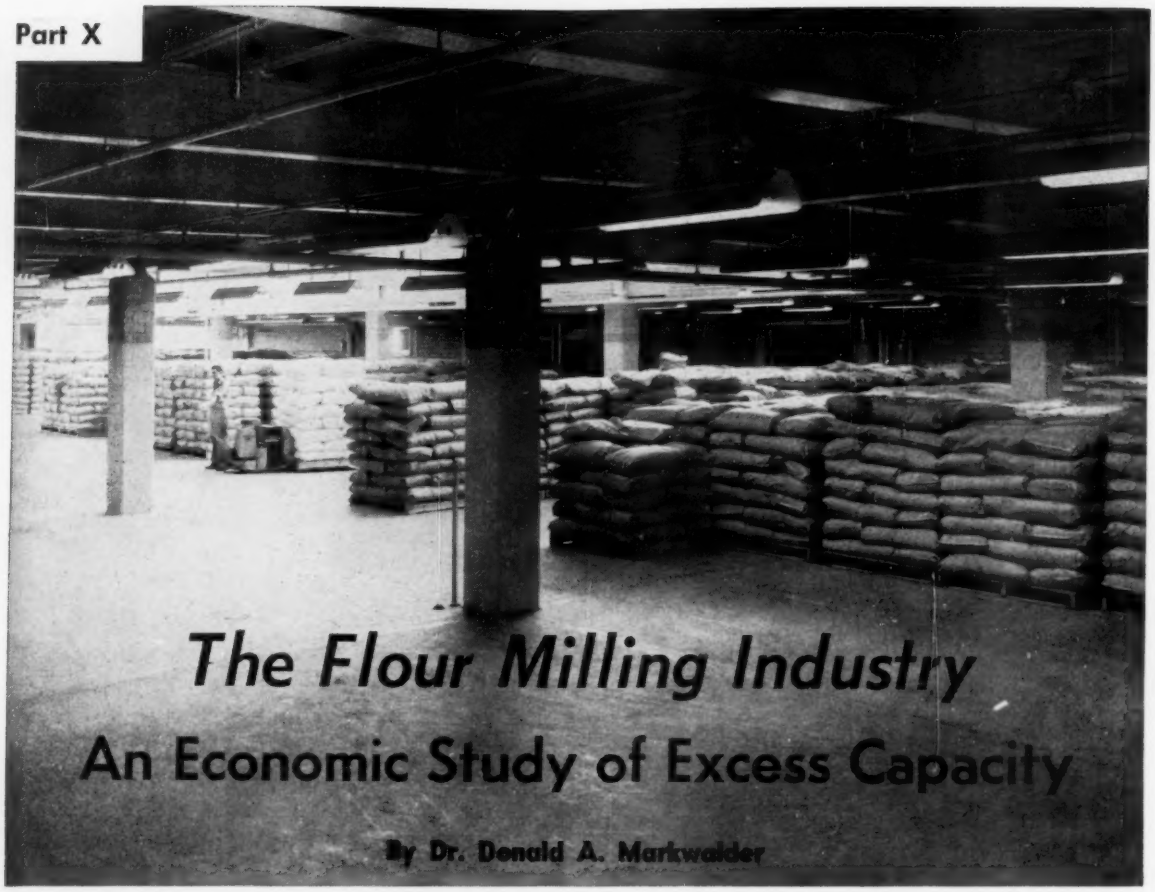

The Flour Milling Industry

An Economic Study of Excess Capacity

By Dr. Donald A. Markwalder

WATER TRANSPORTATION

MILLS WHICH ARE not located in wheat growing areas, or mills receiving most of their wheat supplies from a source several hundred miles distant, normally obtain wheat by water. Buffalo is a case in point, and Chicago, Detroit and Toledo are to a lesser degree.

While wheat is grown in the agricultural regions adjacent to these cities, all receive large quantities of spring wheat by water from Duluth. The freight rate for a bushel of wheat shipped by the lakes from Duluth to Buffalo is not subject to federal regulation, and it fluctuates as demand for cargo space changes.[1] This rate reached a low of 1½¢ bu. in 1932 and a high of 9¢ bu. in 1955.[2] Duluth-Superior shipments of grain (most of which is wheat) have been as follows during the past decade[3] (figures are in millions of bushels):

1956	82.2
1955	96.0
1954	68.7
1953	59.3
1952	69.4
1951	108.7
1950	51.9
1949	100.5
1948	84.5
1947	83.3

Buffalo grain receipts from the Great Lakes are highly correlated with Duluth-Superior shipments, but usually somewhat larger because of receipts from Fort William-Port Arthur, Canada, and U.S. lake cities other than Duluth.

Flour shipments on the Great Lakes have shown almost continuous decline since the 1920's, during which decade Buffalo's greatest increase in flour output took place. One reason why capacity at Buffalo grew so rapidly during the 1920's was an advance in flour rates on the Great Lakes relative to wheat rates. Wheat loading and unloading equipment was improved so that no costly hand labor was involved.

Flour, however, continued to be shipped in barrels or sacks, which required hand labor for loading and unloading. As recently as 1938, 12,834,727 cwt. flour moved eastward through the Soo Canal.[4] By 1954 this quantity had been reduced to 1,898,240 cwt.[5] Low wheat rates relative to flour rates on the lakes and the high cost of handling and storing flour continue as reasons for the decline in flour shipments.[6]

© Donald Alfred Markwalder, 1960.

[1] One gains the impression that the weakening position of the railroads in transporting wheat and flour is partially caused by their inability to vary rates as demand changes. The mill which is completely dependent upon railroad transportation sometimes finds itself with no transportation. It is recognized that "shortages" or "surpluses" are the normal result of frozen price.

[2] "THE Northwestern MILLER," Aug. 2, 1955, p. 11.

[3] "THE Northwestern MILLER Almanack," May 28, 1957, p 79.

[4] "THE Northwestern MILLER," Jan. 3, 1940, p. 35.

[5] Department of the Army, "Waterborne Commerce of the United States" (Washington, D.C.: Government Printing Office, 1955), Part II, p. 95.

[6] It is interesting to speculate whether the completion of the St. Lawrence Seaway will significantly affect the location of flour milling. Stanley W. Phillips, an economist for the U.S. Department of Agriculture, thinks that when the St. Lawrence Seaway is completed "flour milling capacity at the head of the lakes (Duluth) may be increased," "THE Northwestern MILLER," Aug. 9, 1955, p. 12). Although it must be admitted that the completion of the Seaway will cause Duluth to become slightly more favorably located to serve the export market, one must not hastily conclude that any new capacity could be economically constructed at Duluth. Excess capacity still exists in the industry, and flour cannot be shipped by the lakes from Duluth for approximately four months of the year. Since the Seaway will be frozen as early as or earlier than the lakes route, the last boats must leave Duluth about a week earlier in the fall to reach the mouth of the St. Lawrence.

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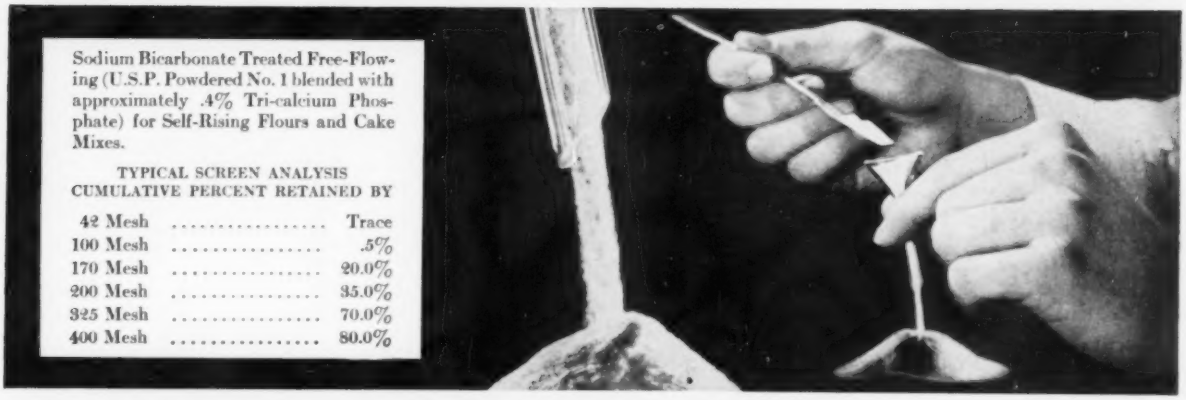
100 Mesh	.5%
170 Mesh	20.0%
200 Mesh	35.0%
325 Mesh	70.0%
400 Mesh	80.0%



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42 Mesh	Trace
100 Mesh	.5%
170 Mesh	20.0%
200 Mesh	35.0%
325 Mesh	70.0%
400 Mesh	80.0%

Sodium Bicarbonate U.S.P. Granular No. 4 specially formulated for the Manufacture and Compounding of Baking Powders and Cake Mixes.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

80 Mesh	Trace
100 Mesh	1.5%
170 Mesh	80.5%
200 Mesh	91.0%
325 Mesh	98.5%

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Excess Capacity (Continued)

Shipments Fluctuate

While shipments of flour on the Great Lakes have been declining for the past three decades, river shipments of both wheat and flour have been increasing during the same period. Primary reason for this increase in barge shipments of wheat and flour on rivers is the government-sponsored improvements made in the system of inland waterways — particularly the Ohio, Missouri and Mississippi River system.

Flour is shipped from Kansas City by barge as far east as Pittsburgh, and the mill built by Nebraska Consolidated Mills Co. at Decatur, Ala., in 1940 was designed to use barge transportation exclusively to bring its wheat to the mill. Wheat is shipped from Missouri and Mississippi River points and thence up the Tennessee River to the mill. Flour is shipped from the mill largely by truck.

In addition to shipments of flour made on the Great Lakes and navigable rivers, flour is also shipped from the Gulf and Pacific Northwest to seaports in other sections of the U.S. The Pacific Northwest is the region in which soft wheat prices normally are lowest. Soft wheat flours are exported from mills in Seattle, Portland and Tacoma. Also, they are shipped to other parts of the U.S.

Prior to opening of the Panama Canal in 1913 any waterborne flour shipments from the Pacific Coast to the eastern U.S. had to take the extremely long route around South America. With opening of the canal this route was greatly shortened, and increasing quantities of flour were shipped from the Pacific Coast.

At present, large quantities of flour are sent from Washington and Oregon to California, as well as to the Southeast. The quantity of flour sent from Washington and Oregon to the Southeast is largely a function of the wheat price differential which exists between the two regions. When there is a large crop of soft wheat on the Pacific Coast and a small one in the Southeast, such as happened in 1927, mills of the Southeast are in a very disadvantageous position.[7] The soft wheat flours produced in the Pacific Northwest are well suited to the large family flour demand in the Southeast as excellent biscuit flours.

Southwest Shipments

Flour shipped by boat from the Southwest to other U.S. ports is almost exclusively hard wheat flour. Flour sent from the Gulf Coast to other areas of the U.S. usually goes to Atlantic Coast ports, but flour shipments to the Pacific Coast are not unknown.

The normal structure of flour prices does, however, militate against shipments of flour from the Gulf to the Pacific Coast as Pacific Coast prices are usually lowest, Gulf prices are next lowest, and Atlantic Coast prices highest. During the past decade flour has been shipped by barge directly from St. Louis and Kansas City to the Gulf and then reloaded on larger boats for transport to Atlantic ports.

Previous to the 1920's, shipments usually went to the Gulf by rail. The only mill located directly on the Gulf Coast is the Galveston plant of Burrus Mills, Inc.*

To summarize, an understanding of the nature of costs incurred by milling firms helps substantially in explaining the presence of excess capacity in the industry. The industry's cost structure explains why regional increases in capacity take place so rapidly in response to cost changes, even when excess capacity exists in the industry as a whole.

The fact that fixed costs are a very small percentage of total costs has contributed substantially to locational shifts. Economic theory tells us that a firm will build a new plant when the total cost of producing with the new plant is less than the total variable cost of producing with the old plant. Because fixed costs in the milling industry are not in excess of 4% of total costs,[8] this means a relatively small percentage decline in variable costs of milling in a particular region will be sufficient to induce capacity expansion in the region.

Such regional reductions in variable costs have frequently taken place as a result of changes in geographical location of wheat production and the flour market. Other regional shifts have been induced by changes in the transportation rate structure. In an industry in which capacity wears out only slowly these regional shifts have resulted in the continued existence of excess capacity.

In addition, declining transport costs brought about by development of railroads, and more recently by increased use of water and truck transportation, have tended to adversely affect milling profits by resulting in increased market inter-penetration. This increased market inter-penetration has, in turn, made the sales and factor supply curves of firms more elastic, thus tending to promote capacity expansion in many sub-optimum sized plants.

DEMAND

Domestic and Export

We now will attempt to delineate long term trends and short term fluctuations in domestic and export demand for flour milled in the U.S. In analyzing domestic demand we will devote considerable attention to price and income elasticity of flour demand and explain how they have influenced the trend of domestic consumption. We will then discuss the relatively unpredictable fluctuations that have taken place in the export market. Finally, we will show how behavior of demand over time has been a contributing factor to the problem of excess capacity in an industry in which plant wears out only very slowly.

The level and trend of flour demand in the domestic market is extremely important because approximately nine-tenths of all flour produced in the U.S. is consumed domestically. Of crucial importance in appraising the trend of U.S. flour consumption is an understanding of the price and income elasticities of flour demand.

Price Elasticity

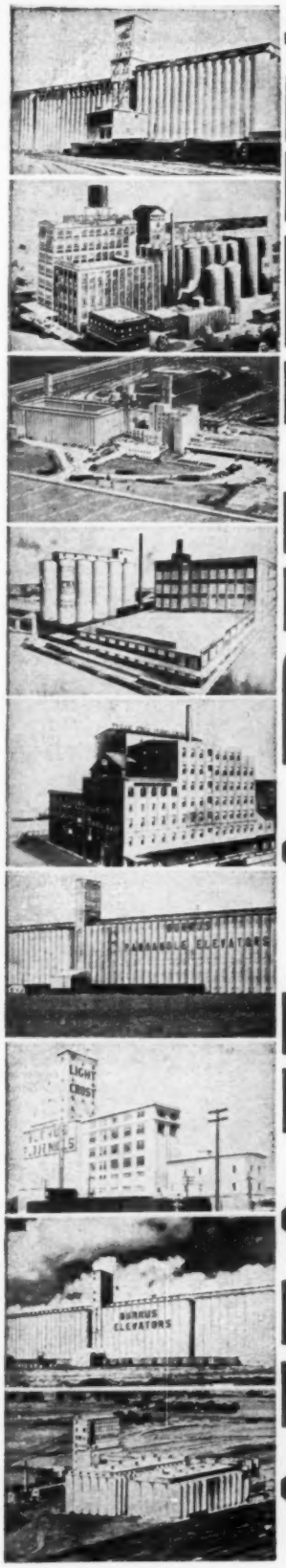
At any point in time the quantity of a product demanded by an individual depends upon his tastes, price of the product, income of the individual, and the price of substitutes and complements. With given tastes, a change in money income or price of any commodity in the economy is recognized as possible cause of a change in the quantity demanded of a particular commodity.

Thus, the demand curve of economic theory is drawn with certain assumptions and is difficult to test empirically. In fact, Holbrook Working, who spent several decades studying the economics of wheat and flour, came to the conclusion that "even after years of effort devoted to refining data, no trustworthy measurement

[7] W. H. Strowd, "A Fore and Aft Glimpse of Soft Wheat Milling," "THE Northwestern MILLER," March 21, 1928, pp. 1104-05. Dr. Strowd (secretary of the Soft Wheat Millers' Assn.) stated that it was not possible for mills located in the Southeast to grind soft wheat grown in the Pacific states because millfeed was priced as high in the latter areas as in the former. This deterrent to grinding Pacific Coast wheat in the Southeast still exists.

*Editor's Note: This plant currently is idle.

[8] For a new mill they would be significantly higher.



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(of the demand curve for wheat flour) has been obtainable."[9]

However, Working did conclude that for the U.S. in the years immediately preceding World War II elasticity of aggregate demand for wheat flour was zero.[10] Another study concludes that for the U.S. in the period from 1919 to 1934 elasticity of demand for wheat flour was —.012.[11] All available evidence and estimates indicate that price elasticity of wheat flour demand is very low indeed.

Elasticity Studies

Studies of price elasticity of demand for bakery products for the U.K. by Richard Stone[12] and for the U.S. by K. W. Meinken[13] show inelastic demand for bakery products. Stone's work reveals that in the U.K. elasticity of demand for bread was —.08 with a standard error of plus or minus .07, and elasticity of demand for cakes and biscuits was —.74 with a standard error of plus or minus .20.[14] Meinken's study for the U.S. covering the period 1923-47 showed a price elasticity of demand for bread of —.60.[15]

Since the cost of wheat flour is approximately 3% to 30% of the total cost of bakery products, the derived elasticity of demand for flour for bakery products is much lower than for these products themselves.[16] Because changes in the price of bakery products have not in the short-run brought about any change in total flour consumption, these price changes have apparently been accompanied by changes in home baking which approximately compensated for any increase or decline in the amount of flour used by bakers.

Income Elasticity

While available data show that the income elasticity of demand for bakery products is positive,[17] both time

[9]Working is quoted in "The World Wheat Economy"—1885-1939 by Wilfred Malenbaum (Cambridge: Harvard University Press, 1953), p. 185.

[10]Ibid., p. 72—Working had reached the same conclusion during the 1920's. "Statistics of American Wheat Milling and Flour Disposition since 1879," Wheat Studies, p. 64.

[11]James H. Bredin, "Statistical Measurement of the Elasticity of Demand With Special Reference to Wheat" (unpublished Ph.D. dissertation, Northwestern University, 1935), p. 142.

[12]Richard Stone, "The Measurement of Consumers' Expenditures and Behavior in the U.K., 1920-1938, Vol. I (Cambridge, England: Cambridge University Press, 1954).

[13]Kenneth W. Meinken, U.S. Department of Agriculture, "The Demand and Price Structure for Wheat," Technical Bulletin No. 1136 (Washington, D. C.: Government Printing Office, 1955).

[14]Stone, pp. 106, 331.

[15]Meinken, p. 21.

[16]With the price elasticity of demand for bread being —.08 and flour making up approximately 30% of the cost of bread, the derived elasticity of demand of flour for bread would be —.024.

[17]Charles Slater, "Baking in America," Vol. II (Evanston, Illinois: Northwestern University Press, 1956), p. 74. Slater shows for the U.S. an income elasticity of plus .40.

TABLE I

Weekly Per Capita Consumption of Wheat Flour Products by Urbanization and Income for the U.S. in Lb.

Family Income	Family Flour, All Purpose	Flour Mixes	White Bread	Flour Equiv. for White Bread[1]	Macaroni Spaghetti Noodles	Total Flour
U.S. Average						
$2,000-2,999	1.11	.15	1.13	.70	.13	2.09
3,000-3,999	.76	.19	1.30	.81	.13	1.89
4,000-4,999	.58	.22	1.29	.80	.14	1.74
5,000-5,999	.55	.21	1.31	.81	.14	1.71
6,000-7,999	.42	.22	1.38	.86	.12	1.62
Farm						
$2,000-2,999	1.79	.14	1.05	.65	.09	2.64
3,000-3,999	1.55	.17	1.09	.68	.10	2.40
4,000-4,999	1.40	.19	1.16	.72	.09	2.30
5,000-5,999	1.11	.20	1.26	.78	.10	2.19
6,000-7,999	1.22	.19	1.22	.76	.10	2.27
Urban[2]						
$2,000-2,999	.67	.15	1.11	.69	.15	1.66
3,000-3,999	.50	.17	1.26	.78	.15	1.60
4,000-4,999	.39	.21	1.28	.79	.16	1.55
5,000-5,999	.43	.12	1.28	.79	.15	1.58
6,000-7,999	.32	.23	1.35	.82	.13	1.50

Source: "The Wheat Situation," U.S. Department of Agriculture, April 26, 1957, p. 26.

[1]Assuming that 62% of white bread by weight consists of flour.

[2]Above 2,500 population.

Walter J. Charnley, Milling Veteran, Dies in Omaha

Walter J. Charnley, a familiar figure in the milling industry since the turn of the century and the man largely responsible for puffed breakfast cereals, died in Omaha July 7 following an extended illness. He was 78.

Mr. Charnley was president and general manager of the Puritan Manufacturing Co., which firm he helped organize in 1927. During his tenure the company fabricated equipment for mills around the world.

Originally from Milwaukee, Mr. Charnley began his career at the Washburn Crosby Co. mill at Great Falls, Mont., in 1903. He started as a bolter and sifter, was a miller and head millwright when he quit in 1918 to work for the Omaha Flour Mills Co. He remained with the Omaha firm six years and then started his own business.

In the early 1930's he redesigned and patented the cereal puffing machine used by the industry today. The Puritan firm still makes the machines, some of them for export, plus other equipment.

Survivors include his wife, Katherine; a sister, Edith Charnley, Everett, Wash., and a nephew, William W. Charnley, associated with Puritan. «

School Lunch Program Organized in Peru

A model school lunch program, complete with a new building to handle about 300 students who will be served nutritionally balanced meals featuring wheat foods, has been started in Leticia, Peru, a community near Lima.

Great Plains Wheat, Inc., is participating in the program, and its director in South America, Harlan Parkinson, assisted with laying of the cornerstone for the new building to house the lunchroom.

To organize the school lunch program, Great Plains Wheat mobilized the Leticia community, a depressed area.

Construction will be done with voluntary labor, and surplus foods from the U.S. will be supplied under Title III of Public Law 480. Great Plains Wheat will furnish equipment for food preparation, utilizing foreign currencies from sales of surplus commodities under PL 480.

Miss Lucia Montoya, regional home economist for the wheat organization, will be in charge. «

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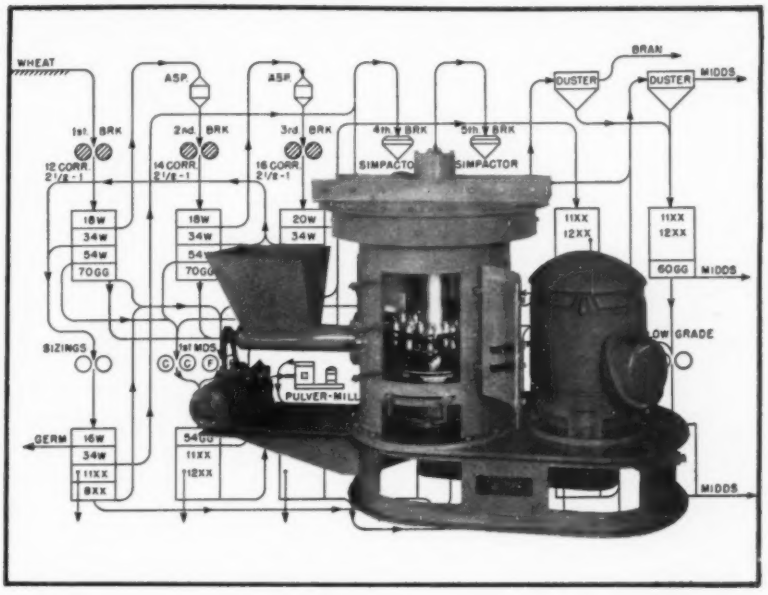

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series and cross-sectional data strongly indicate that the income elasticity of demand for wheat flour—irrespective of the form in which it is consumed—is negative.[18]

One striking fact shown by Table I is the very large difference at all levels of income between urban and farm family flour consumption. Among farm families per capita family flour consumption is almost twice as large in the highest income category shown as it is among urban families in the lowest income category.[19] Because only a small percentage of farm housewives are gainfully employed, these figures may indicate that whether or not a housewife has an "outside" job is as important as income in determining the amount of home baking done, and thus per capita family flour consumption.

It is interesting to note that in all instances family flour consumption declines as income increases. Time series data also show this to be the case. Consumption of flour mixes and wheat bread in general increases as income rises, but there are exceptions in the highest income bracket.

On the other hand, total per capita flour consumption—with two exceptions listed in the table—declines as income rises. It must be remembered that flour consumed in bakery products other than white bread is not included in these totals, but other statistics[20] indicate that per capita consumption of these other bakery products also declines after family income reaches $3,500 or $4,500. Thus, totals presented for the U.S. correctly indicate that for cross-sectional data total flour consumption continuously declines as family and per capita income rises. «

[18]The apparent conflict which exists between the positive income elasticity of demand for bakery products and the negative income elasticity of demand for flour is apparent only and not real. As income rises the decline in the amount of flour used in home baking outweighs the increased consumption of bakery products. In the case of time series data there is some evidence which suggests that this income elasticity relationship may not be reversible. That is, as income rises over a period of time, per capita flour consumption may not rise. This phenomenon will be discussed later.

[19]An unpublished paper of Samuel G. Barton of the Market Research Corporation of America written in 1958 also reveals that farm per capita family flour consumption is from seven to 10 times as great as in cities having a population above 500,000.

[20]E. G. Slater, p. 60.

In Part XI Dr. Markwalder continues his analysis of demand, giving close attention to the long range declining trend in per capita consumption. He then moves on to consider trends in flour exports and imports.

For Current Reading . . .

• Booklets • Pamphlets • Trade Reports

WHEAT PRODUCTION IN CERTAIN PACIFIC NORTHWEST COUNTIES—A report, by wheat varieties, for 1958, 1959 and 1960, for eastern Oregon, eastern Washington and northern Idaho. The booklet tabulates estimated production by counties for the years specified for common white wheat, white club, hard red winter, soft red winter and hard red spring. Report was prepared by the Pacific Northwest Crop Improvement Assn. (Copies are available on request from the association, 440 Peyton Bldg., Spokane 1, Wash.)

» »

WHEAT IMPROVEMENT IN THE PACIFIC NORTHWEST — A pamphlet comprising the 18th annual report of the Pacific Northwest Crop Improvement Assn., covering 1960-61. It details such activities of the past year as the association's educational program to combat the problem of treated seed wheat entering commercial channels; its sanitation short course; certified seed program; smut control; variety development; technical committee report; wheat quality program, and varieties surveyed, along with other information. (Request copies from the Pacific Northwest Crop Improvement Assn., 440 Peyton Bldg., Spokane 1, Wash.)

» »

IMPROVING THE QUALITY OF NEBRASKA GRAIN — This is the 23rd annual report of the Nebraska Grain Improvement Assn. It contains an outline of the association's program for 1960, an explanation of the year's variety testing program, a number of tables on test plot results on wheat, and tests and yields on other grains. The entire year of activity by the association, including its wheat show program, milling and baking contest results, are reviewed in detail. Also covered are the annual grain grading school and public relations activities. The booklet is illustrated with photographs. (For copies, contact Duane Foote, executive secretary, Nebraska Grain Improvement Assn., College of Agriculture, Lincoln, Neb.)

» »

FOOD FOR PEACE—A pamphlet outlining the aims, purpose and operation of the U.S. Food for Peace Program, illustrated, with a chart and special section on dollar distribution of the program's funds as a part of the U.S. agricultural program. The pamphlet contains an introduction by President Kennedy. (For copies, contact the director, Food for Peace Program, U.S. Department of Agriculture, Washington, D.C.)

» »

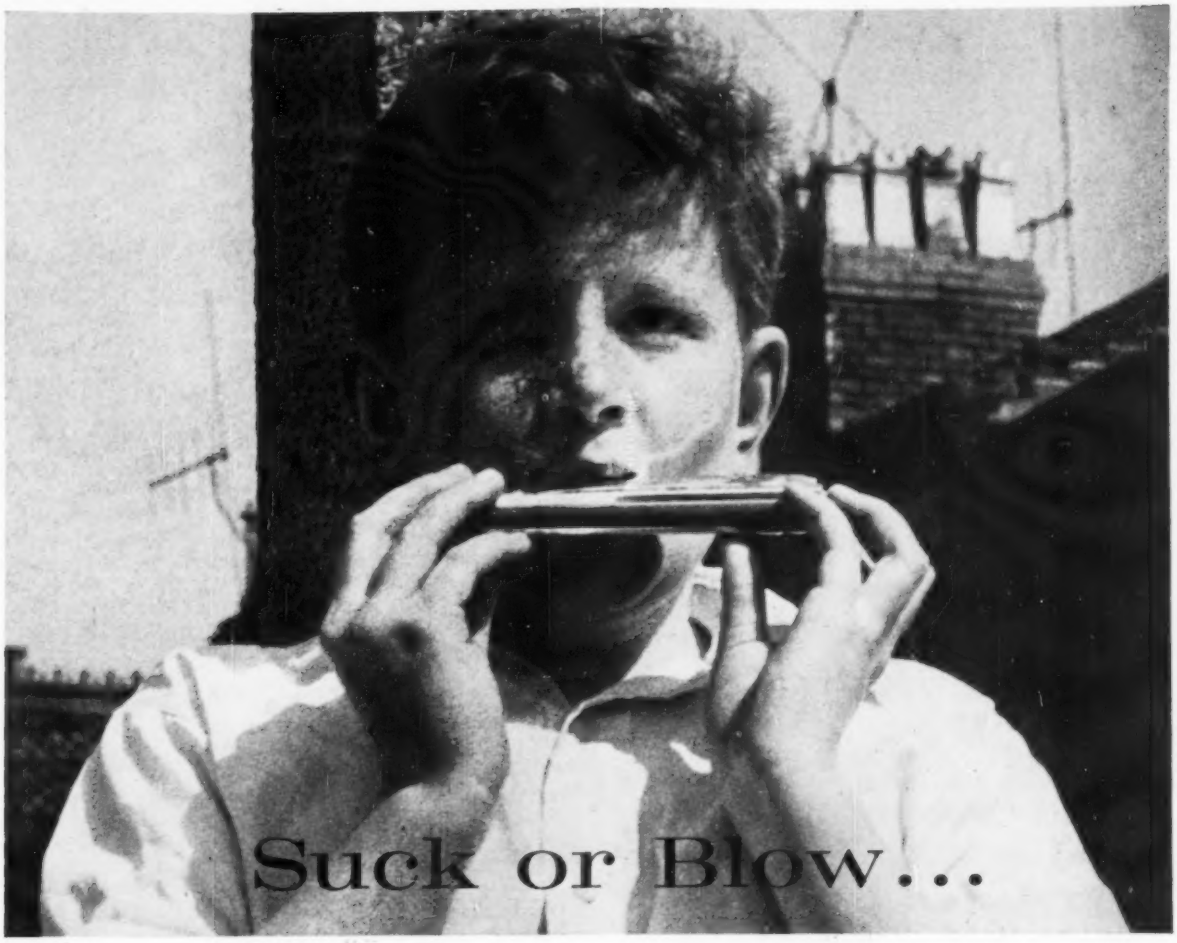
MIXING OF BREAD DOUGHS BY CONVENTIONAL METHODS—This is a three-page bulletin, No. 168, written by James E. Wolfe, Pelham Manor, N.Y., and Gaston Dalby, New York City, published by the American Society of Bakery Engineers. It describes some of the important factors which affect mixing requirements, lists flour, maturing agents and dough improvers, salt and absorption as specifics to be considered as part of the mixing problem. Also contained in it are practical suggestions on how to secure the best dough development for optimum crumb structure. (Copies available on request. Contact Bernard Bergholz, Jr., secretary, American Society of Bakery Engineers, Room 1354, LaSalle Wacker Bldg., 121 West Wacker Drive, Chicago 1, Ill.; enclose 4¢ stamped long envelope.)

» »

TRAFFIC PATTERNS—This is U.S. Department of Agriculture Marketing Research Report No. 465, covering traffic patterns in domestic water transportation of farm products and supplies. It is based upon data gathered by the U.S. Corps of Engineers, Department of the Army, with technical assistance by Morris Perlberg, chief, Waterborne Commerce Statistics Branch. Grain and grain products, among others, are tabulated in tonnages for specific years covered. The booklet has a summary of agricultural commodities and farm supplies moved by waterborne commerce, a brief historical introduction covering the period since World War II, and a bar chart showing volume of movement for specific years. (For copies contact the Transportation and Facilities Research Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, D.C.)

» »

Where no price is stated the publication is presumed to be available without charge from the source. Readers are requested to submit orders to the sources listed.



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Plans Move Ahead for Nigerian Mill

PLANS ARE MOVING ahead for construction of a flour mill in Nigeria, the country's first, a $4 million project in which Allis-Chalmers Manufacturing Co. and Chase Manhattan Bank of New York will be participants. The mill will be built for Flour Mills of Nigeria, Ltd., a new company formed by the Southern Star Shipping Co., Inc., as the result of an agreement with the Nigerian government.

Allis-Chalmers has been appointed as process engineer and supplier of all process equipment, including roller mills, sifters, purifiers and all motors and starters. Present plans for the project call for installation in March of next year.

Nigeria, during the period 1948 to 1959, increased its imports of flour from 4,000 tons a year to more than 50,000 tons.

The mill will consist of three six-story units approximately 208 ft. in length with reinforced concrete frames, and will have a capacity of about 570 long tons daily, or over 12,500 cwt., basis 24 hours of operation. It will be erected near the docks of Apapa, a suburb of Lagos, and will include a mill building, warehouse, bulk wheat storage facilities, a cleaning house, office building and canteen.

Flour Mills of Nigeria has been extended medium term credit of $1,320,000 by the U.S. Export-Import Bank. An additional credit of $600,000 will be financed jointly by Chase Manhattan and Allis-Chalmers.

Southern Star Shipping has acquired two sites, one an industrial location for building the triangular-shaped flour mill and the other in a residential area of Apapa for development of employee dwelling units, a roadway and a park and recreation section.

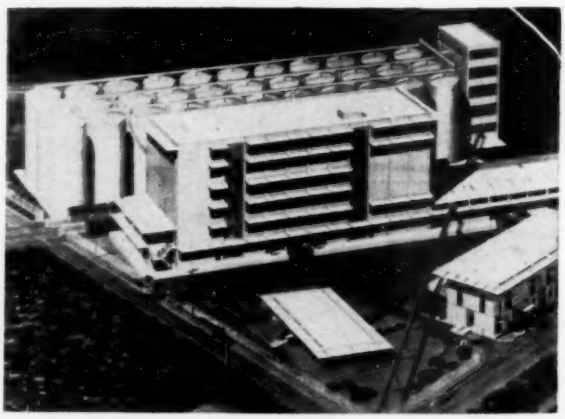
The industrial site provides for one side of the mill to face an existing roadway, another facing a road under construction, and third side parallel to an existing railroad line. The 4.7 acre site is bisected by a railroad line which will be relocated to suit the flour mill layout and fenced off, because the Nigerian Railway Corp. has permanent right-of-way for this line.

Other improvements will include reconstruction of the Apapa docks to accommodate ship loading and unloading equipment. Right-of-way has been granted for installation of a mobile marine unloading tower. The facilities will provide not only for ship discharge of grain but also for pick-up of flour bags from an elevated conveyor system connecting with the mill site.

Bulk storage will be handled initially by 30 elevators, each 64 ft. high and 26 ft. in diameter.

On the 4.1 acres of residential property, plans call for initial development of apartments for 18 employee dwelling units. Final development is expected to add 12 more dwelling units, an independent roadway and the park-recreation area.

Brown Engineers, New York, has been appointed architect and engineer for the project. «



THIS ARCHITECT'S sketch shows the proposed flour milling complex at Apapa, Nigeria, expected to be completed next spring. Major structures are the office building in the foreground, canteen at the left, flour mill and warehouse for which Allis-Chalmers will provide all process equipment in the center, and bulk wheat storage facilities in the background. Dock facilities will be located off the picture to the left.

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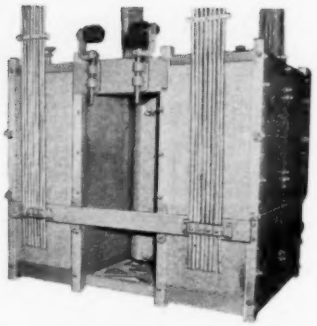

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YEARS AGO

From the Files

Of THE MILLER

By Sarah Yocom

WE'RE BACK ON the subject of what talented people we have in the industry. Of course, all of us associated either directly or otherwise with milling have known this all along, and in previous columns we exposed you to both prose and poetry as penned by various personalities from the past. The allied industries also have their share of "masters of the written word," and we've selected one this week which should give you a chuckle as well as enlighten you on the way certain individuals dealt with their competition. In this case the competition happens to be our own journal, and they took the ribbing as any good sport would—but not without contributing a few "introductory remarks."

You will recall that on June 12 this column carried an item from the 1876 archives suggesting that one Jonathan Mills compose a poem for the millers' convention of that year. The writer then proceeded to contribute some original and choice words of his own as to how Mr. Mills might go about beginning.

Mr. Mills did indeed compose a poem, and although it was far from complimentary to the editors of our esteemed forefather (Ostrander and Hoppin), we'll be first to admit that it was very amusing.

The Northwestern Miller
July 21, 1876

The following refrain from the witty pen of Jonathan Mills is good. We publish it in full with introductory comments and thank Mr. Mills from the bottom of our heart for its production, believing it has given us a lease on immortality. The poem by Jonathan Mills, advertised in The Northwestern Miller, was not read at the convention owing to the absence of Mr. Mills. His alternate, however, showed us his manuscript, the opening lines of which were not as quoted by Ostrander,

"My name is Jonathan Mills,
As ancient as the hills,"

but as follows:

"Millers and millwrights all beware,
Of that fraudulent emery man,
Ostrandair,
He and his wheel are a knavish pair
Who guile the unwary and good millair,
In a style that's hardly right and square.
So, miller and millwrights watch with care,
The man with a mouth always fixed for a swear.
If into your mill to come he should dare,
Persuade him to leave by your office chair,
Or put him through some good smuttair,
Or haul him around by his sandy hair,
And smite his nose, and his garments tear,
And only his life be sure to spare,
For not quite yet is he needed down there;
Besides, it's hot this 'ere summair,
And brimstone's Old Nick's only fare,
Which would be rather hard for one to bear
Of such delicate taste as is Ostrandair.

●

Henry Simon, of Manchester, England, reads The Northwestern Miller, and thinks "it is not likely to let the millers go to sleep, as regards improvements in the mode of milling."

●

Messrs. Mesner and Heffelfinger of Pleasant Plains, Jefferson County, Iowa, have nearly completed a new four-run mill at that place. Mr. Heffelfinger we know by reputation as an active, energetic man, and we can safely predict prosperity for the new firm.

●

The weekly payroll, for wages alone, at the shops of E. P. Allis & Co., at present, is the enormous sum of $5,000 per week.

●

Odds 'n' Ends—

50 YEARS AGO
July 26, 1911

Interest being taken in the "Rock Island Wheat Train," operated in connection with the Kansas State Agricultural College, is evidence that there is a rapidly increasing interest among the farmers of Kansas in the subject of scientific wheat-growing methods and care in the selection of seed wheat. At every stop made by the train several hundred farmers with their families are in waiting to listen to the talks of the agricultural authorities and view the exhibits contained in the cars.

The local merchants along the Rock Island lines have done much to make the trip a success by offering goods at reduced prices and providing lunches, etc., for the people who come to town on the day the train is scheduled. H. M. Cottrell, agricultural commissioner for the Rock Island Lines, is in charge of the train.

●

A little device, which is an entirely new machine, and the first one that has ever been offered to millers for the purpose of regularly and automatically taking off a sample of their products, is manufactured by the S. Howes Co., Inc., of Silver Creek, N.Y. It is 24 in. in height, 20 in. in width and 20 in. in depth, and weighs about 100 lb.

●

25 YEARS AGO
July 29, 1936

Back in 1766 things weren't so hot for farmers and millers, if you can believe the documents of that period, one of which discloses that English farmers of the time were divided into four classes: (1) The poor farmers "who are very numerous"; (2) the farmers in moderate circumstances; (3) the farmers in good circumstances, and (4) the rich farmers. Merchants, millers and bakers were regarded as potential criminals, so it was not necessary to place them in a category. 'Twas always a tough life, verily—that of the miller. Strange we should still have him with us!

●

10 YEARS AGO
July 24, 1951

The Ismert-Hincke Milling Co. and its associated firm, the Thomas Page Milling Co., whose mills were halted by the disastrous Kaw River Valley flood, are again in operation, company officials said this week.

●

To encourage an exchange of information between the nation's teachers and businessmen, the Bemis Bro. Bag Co., St. Louis, is again sponsoring two fellows in the college-business exchange program of the Foundation for Economic Education. «

Canadian Wheat Flour Output For May at 3,426,000 Cwt.; Sharply Above April Figure

Canadian wheat flour output for May, at 3,426,000 cwt., made a sharp gain over April and a moderate rise over May of last year, but it slumped slightly from the 10-year May average for 1951-60.

The total May output represents an increase of 12% over April's figure of 3,066,000 cwt. It's also 5% above production of 3,253,000 cwt. reported for May of 1960.

It was, however, 4% below the 10-year average production for May of 3,579,000 cwt.

As its part of the total May offtake, Ontario winter wheat flour amounted to 219,000 cwt. against 212,000 cwt. of that type milled the previous May.

Looking at Canada's production for the first 10 months of the current crop year, the total amounts to 33,373,000 cwt. compared with 33,498,000 cwt. for the comparable 10 months of 1959-60.

For the August-May period, Ontario winter wheat flour production totaled 2,253,000 cwt. It was 2,048,000 cwt. during the same 10 months of last year.

Mill Operations

Mill operations for May averaged 85% of the daily rated capacity of 155,000 cwt., computed on a 26-day working period. Going back to April, mills reporting averaged 79% of daily rated capacity, also 155,000 cwt., but computed on a 25-day working period.

Wheat milled for flour during the current May came to 7,672,000 bu., or 4% more than the 7,377,000 bu. milled the previous May. Ontario winter wheat milled, included in the May, 1961 total, amounted to 512,000 bu. compared with 491,000 bu. of Ontario winter wheat milled during May, 1960.

Over the 10-month period, total Canadian wheat milled for flour was 75,107,000 bu., of which 5,247,000 bu. were Ontario winter wheat. During the corresponding period of 1959-60 a total of 75,886,000 bu. wheat was milled into flour, including 4,808,000 bu. of Ontario winter wheat.

An unofficial estimate places the amount of Canadian wheat flour exported during May at 1,700,000 cwt. and total exports for the first 10 months of 1960-61 at 13,802,000 cwt. This compares with a revised figure of 13,359,000 cwt. for the first 10 months of 1959-60.

Millfeed production for May amounted to 57,000 tons, or 2% above the 56,000 tons produced in May of 1960. Total millfeed production during the August-May period was 560,000 tons against 567,000 tons for the comparable period of the earlier crop year. «

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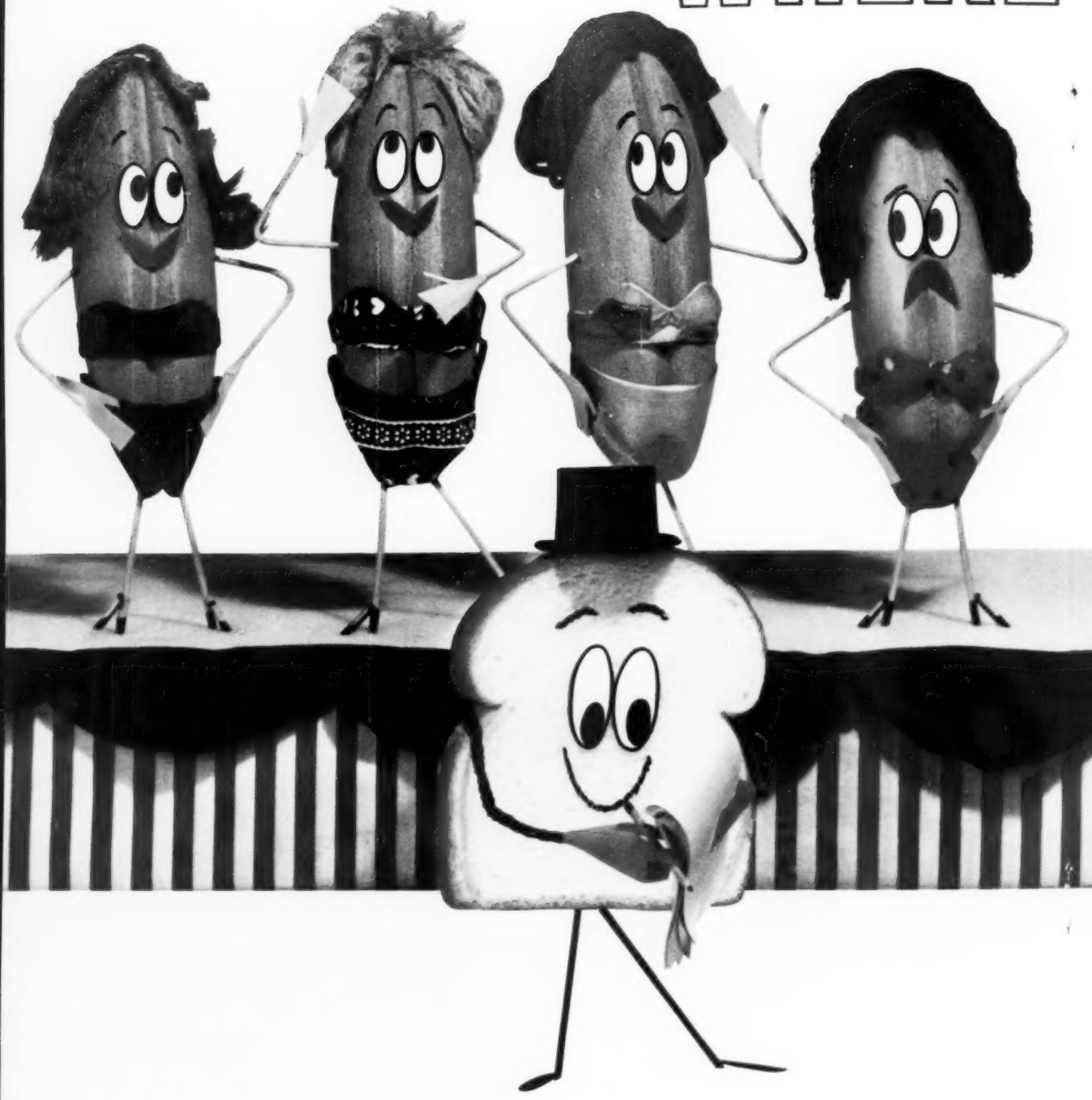

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THE MILLER is available in microfilm form for libraries and companies with microfilm facilities. A complete set of issues for the years 1950 through 1960 can be secured and subsequent volumes will be issued annually.

All types of libraries, faced with a space problem caused by the constant flood of publications, are substituting microfilm editions for their paper copies after they have passed their period of maximum use.

The microfilm is in the form of positive 35 mm., on suitably labeled plastic reels, each covering an entire volume. The labeled reels are packed in kraftboard cartons ready for storage on library shelves or for use in a microfilm viewer.

Orders should be addressed to University Microfilms, Inc., 313 N. First Street, Ann Arbor, Mich.

Looking for Films About Wheat Foods? MNF Has Them

Complete information on its four popular films promoting wheat foods around the world has been put into a handy fact sheet by the export department of the Millers National Federation. The decision to make the list available—complete with titles, running time and a summary of each film—was made as a result of growing interest and inquiries for such material.

All of the films were designed and prepared with particular emphasis on foreign markets. Because the films contain considerable information about U.S. industry and the wide variety of types and qualities of flour produced for many uses, they are suitable for educational purposes, sales promotion work and public relations activities by millers, bakers and grain men interested in both domestic and overseas markets.

Wheat—Food for the World
(Color, 16 mm., 27 Minutes)

Recently released in the U.S., this film is of special interest to wheat growers, millers, bakers, the allied trades, exporters, overseas importers and foreign governments, among others. It tells the full story of wheat as a world food, shows all stages relating to the domestic industry from seeding through harvesting, milling, storage, transportation, testing and baking, to export and foreign consumption. The film shows a comprehensive variety of wheat products on the market, including prepared mixes and bulgor wheat. It has a lapsed-time sequence showing the action of yeast in breadmaking and baking.

Wheat Foods Around the World
(Color, 16 mm., 35 mm., 11 Minutes)

For audiences at home and overseas, to build interest in wheat foods. This film received a top award in the 1960 Film Media Magazine contest. Shows the universal appeal of wheat as a food, with dramatic scenes on preparation and consumption of a wide variety of wheat products in Asia, Europe and the Middle East. Available also at present in Portuguese and Arabic.

School Lunches for a Better World
(Black and White, 16 mm., 35 mm., 10 Minutes)

First movie showing school lunch program in action in the U.S. and abroad, and first to show wide use of wheat foods in such programs. Encourages the establishment of additional school lunch programs to include wheat foods. Stresses importance of wheat in balanced diet. Suitable for showing to school assemblies, relief-agency and government groups. Special comment by Dr. B. R. Sen, director-general of the Food and Agriculture Organization of the United Nations.

Bread for Breakfast
(Color, 16 mm., 10 Minutes)

Filmed entirely in the Philippines, showing the adaptability and growing consumption of wheat foods in the islands, such as breakfast rolls, and wheat products for widely differing occasions. Beautiful scenic photography and lively dialogue. Highly praised by a team of visitors from the Philippines. Has been designed for use not only by the wheat and flour industry but by all companies or agencies having operational activities in the islands and the Far East.

Additional details about the films may be obtained by writing directly to the Export Programs Division of the Millers National Federation, 752 National Press Bldg., Washington 4, D.C. «

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QUARTERLY INDEX

April-June, 1961 • Vol. 265, Nos. 7-13

ASSOCIATIONS:

American Association of Cereal Chemists (Annual Meeting at Dallas) ..... April 17—p 12
(Cincinnati Section Election) ..... May 29—p 23
(New York Section Election) ..... May 29—p 26
(New York Section Monthly Meeting) ..... April 3—p 57
(Outstanding Members to Be Honored) ..... April 3—p 12
American Insritute of Baking (Retirement, Mary K. Moore) ..... May 1—p 36
Association of Operative Millers (About the Exhibits, Overseas Visitors, Style Show) ..... May 15—p 16
(AOM Comes to Minneapolis) ..... May 29—p 8
(Conference Photos) ..... May 29—p 9; June 26—pp 27, 28, 31
(Gateway District 5 April Meeting) ..... May 1—p 21
(Gold Medal Award) ..... June 26—p 32
(Intermountain District 12, Monthly Meeting) ..... April 3—p 49
(Papers, Excerpts, 65th Annual Technical Conference) ..... May 29—p 8; June 26—p 26
Flour Millers Export Assn. (Meeting) ..... May 1—p 12
Grain Elevator & Processing Superintendents (Meeting) ..... May 15—p 34
Grain Processing Machinery Manufacturers Assn. (Election) ..... May 29—p 26
Millers National Federation (Committee Appointments) ..... June 26—p 11
(Convention) ..... May 1—p 14
(Young Millers) ..... May 1—p 70
National Association of Flour Distributors (Convention) ..... June 12—p 34
Pasteur Institute (USDA Grant Announced) ..... May 29—p 31
Southern Bakers Assn. (Convention) ..... May 15—p 67

AUTHORS:

Ackels, Alden A.
The Free Enterprise System in America ..... June 26—p 24
Bechtel, Welker G.
Freezing Baked Foods Can Mean Flexibility of Production ..... June 12—p 42
Bisson, F. C.
Congressman's Role Is Changing ..... May 15—p 56
Freeman's Folly With the Bakers Underlines His Unfitness for Power Under Omnibus Bill ..... June 26—p 55
Grave Robbing Becomes Respectable ..... April 17—p 15
Impact of New Feed Grain Legislation May Resound Throughout Other Markets, With Wheat Men, Millers, Bakers Feeling Its Force ..... April 3—p 55
Opposition to Rail Freight Changes Still Hot, Though Modifications Meet With Some Approval ..... June 12—p 57
Cecka, M. C.
Precision Graders; Application and Operation in the Wheat Cleaning Flow ..... May 1—p 46
Cotton, Richard T.
Effect of Moisture on Insect Abundance in Stored Dried Foods ..... June 26—p 21
The Long, Long Trail of Organized Research to Control Insect Infestations ..... May 1—p 26
Low Temperature; Its Effect on Insect Pests in Stored Food Products ..... April 17—p 48
Potent Force of Radiant Energy ..... April 3—p 38
Vacuum Fumigation ..... May 29—p 24
Denecke, Diana
Bread Is the Word, Whether It's Baked Plain or Fancy in Any Land ..... May 29—p 32
How to Enjoy Hot Dogs and Hamburgers ..... June 26—p 44
Drake, Austin T.
New Techniques Using Impact Milling ..... April 3—p 21
Earle, Theo.
Natural Sugar in the Endocarp Layer of Bread Wheat; Its Effect on Flour Milling ..... April 3—p 34
Forcade, Wayne
Wheat Legislation ..... May 29—p 62
Griffin, E. L., Jr.; Pfeifer, V. F.; Stringfellow, A. C.
Air Classification of Pacific Northwest Soft, Hard Winter Wheat Flours ..... May 1—p 22
Kozmina, Dr. Natalia
Russian Reply ..... May 29—p 48
Markwalder, Dr. Donald A.
Flour Milling Industry: An Economic Study of Excess Capacity (Part III) ..... April 3—p 28
(Part IV) ..... April 17—p 34
(Part V) ..... May 15—p 26
(Part VI) ..... May 29—p 34
(Part VII) ..... June 12—p 28
(Part VIII) ..... June 26—p 41
Martinson, Quincy H.
The Canadian Wheat Board ..... April 17—p 26
McCoy, Barney C.
Millfeed Prices ..... June 12—p 23
McGregor, Harrison E.
Evaluation of Phosphine Gas as a Fumigant ..... June 26—p 38
Metzger, Benjamin
Controlling Production Temperature ..... April 17—p 23
Moomaw, Louise
Public Meeting Room Builds Goodwill for Denver Baking Firm ..... May 15—p 21
Newell, Martin E.
Broadening of Interests Brings a "New Look" to American Association of Cereal Chemists ..... April 17—p 12
Pfeifer, V. F. (See Griffin, E. L., Jr.)
Robbins, Dewey H.
The Role of the Miller ..... May 29—p 55
Schruben, Dr. Leonard W.
Analyzing Wheat Crop Estimates ..... May 1—p 20
Problem of Wheat Carryover ..... May 15—p 18
Prospects for Wheat Prices ..... June 26—p 18
Wheat Prices and Loan Rates ..... June 12—p 18
World Wide Wheat Problems ..... April 3—p 44
World Wheat Trade Is Growing ..... April 17—p 46
Stringfellow, A. C. (See Griffin, E. L., Jr.)
Swarbreck, George E.
A Mill Re-Visited ..... May 1—p 38
Wakershauser, Ken W.
The Edwin A. Larson Story ..... April 17—p 58
Where the Machines Used by Industry Come Into Being ..... May 29—p 16
Watson, John
Buffalo's Grain Business Shows Signs of Regaining Stability ..... June 26—p 50
Senior Member of Buffalo Corn Exchange Turns Back Clock ..... May 29—p 38

COMPANIES:

Atkinson Milling Co. (Realigns Executive Duties) ..... May 29—p 45
Bemis Bro. Bag Co. (Appointment) ..... May 29—p 18; June 26—p 35
Bunler Bros. (Open House) ..... June 26—p 58
Buhler Corp. (Elimination of Moisture in Bulk Loading Claimed by Engineers Using Pneumatics) ..... May 1—p 25
Cahokia Flour Co. (Scholarship Winners) ..... May 29—p 59
Cargill, Inc. (Using Pneumatic Probe for Taking Samples of Grain) ..... May 29—p 41
Centennial Mills, Inc. (Will Modernize Crown Mills Plant) ..... April 17—p 18
Federal Bake Shops, Inc. (New Federal Unit in Dayton, Ohio) ..... June 12—p 51
Fisher Flouring Mills Co. (New Faces for Old) ..... May 29—p 39
(Role of the Miller) ..... May 29—p 55
General Mills, Inc. (Appointment) ..... May 1—p 21
(Bellera Process) ..... June 26—p 26
(Brands to Be Produced, Distributed by Philippines Firm) ..... June 26—p 57
(Names Two Executives in Products Control) ..... May 15—p 11
(Realigns Top Echelon) ..... June 12—p 11
(Sets Up Refrigerated Division) ..... June 12—p 11
Hayden Flour Mills (Modernization) ..... June 26—p 46
Hubbard Milling Co. (Modernization Includes Pneumatics) ..... May 1—p 76
International Milling Co. (Signs Contract With Firm in Philippines) ..... April 17—p 69
Interstate Bakeries Corp. (Public Meeting Room Builds Goodwill) ..... May 15—p 21
(Addition to office) ..... May 29—p 59
Maple Leaf Mills, Ltd. (Port Colborne) ..... May 1—p 72
Pillsbury Co., The (Los Angeles Plant) ..... May 1—p 74
(The Edwin A. Larson Story) ..... April 17—p 58
Quaker Oats Co. of Canada, Ltd. (Appointment) ..... April 3—p 47
Russell Miller - King Midas Mills (Modernization at Buffalo) ..... April 3—p 14
Seaboard - Allied Milling Corp. (Plans Expansion at Topeka) ..... May 1—p 70
Shawnee Milling (Packing and Storage Building) ..... May 29—p 18
Simon-Carter Co. (Where the Machines Used by Industry Come Into Being) ..... May 29—p 16
Standard Brands, Inc. (Baking Industry Census Report) ..... May 29—p 31
Standard Milling Co. (Awards Scholarship) ..... April 3—p 33
Sterling Drug Co., Inc. (Sales Report) ..... April 3—p 16
Sturtevant Mill Co. (Custom Milling Development) ..... May 29—p 15
Tennant & Hoyt Co. (Pneumatics Bring New Look to Old Plant, Making Air, Making Space, Making Flour) ..... May 1—p 38
Waltz-Hattelsater Engineers (Long Beach Grain Terminal) ..... June 26—p 64

CANADA:

The Canadian Wheat Board ..... April 17—p 26

CONFERENCE:

Pacific Northwest Bakers Conference ..... April 17—p 57

EDITORIALS:

Dr. Kozmina's Letter Evokes Reaction from Readers ..... June 26—p 7
Let's Face the Facts About Bellera ..... April 3—p 7
Operative Milling Becomes a Profession ..... May 1—p 7
Orville L. Freeman Casts a Slur on the Bakers ..... June 12—p 7
Packaging Moves Ahead in Importance ..... April 17—p 8
Philosophy of James Ford Bell ..... May 15—p 7
Poor Costing Means Poor Profit for the Baker ..... April 17—p 7
Some Wise Advice for Flour Salesman ..... June 12—p 7
Where the Baker's Cost-Price Squeeze Hurts Most ..... May 15—p 7
Promotional Ability Shown at AOM Conference ..... June 26—p 8
Profit, Depreciation and Modernization ..... April 3—p 8
Remarkable Features of 65th AOM Tech. Conference ..... April 3—p 7
Wheat the Focal Point at Washington, Manhattan ..... April 17—p 7

EXCHANGES:

Buffalo Corn Exchange ..... May 29—p 38
Chicago Board of Trade ..... May 1—p 73

FLOUR MILLING INDUSTRY:
An Economic Study of Excess Capacity (Part III)....April 3—p 28
(Part IV) ....April 17—p 34
(Part V) ....May 15—p 26
(Part VI) ....May 29—p 34
(Part VII) ....June 12—p 28
(Part VIII) ....June 26—p 41

FLOUR PRODUCTION:
Total February Output, Daily Capacity Decline from January ....April 3—p 67
March Flour Production Above February, Daily Output Dips ....April 17—p 14
April Flour Production 19,353,502 Cwt. ....May 15—p 9
Weekly Flour Production Statistics (Charts)—April 3—p 62; April 17—p 62; May 1—p 68; May 15—p 60; May 29—p 60; June 12—p 62; June 26—p 62

FUMIGANTS:
Evaluation of Phosphine Gas as a Fumigant....June 26—p 38

IMPACT MILLING:
New Techniques Using Impact Milling ....April 3—p 21

INFESTATIONS:
The Long, Long Trail of Organized Research to Control Insect Infestations ....May 1—p 26

INSECTS:
Effect of Moisture on Insect Abundance in Stored Dried Foods ....June 26—p 21

JAPAN:
Tsurumi, Japan, New Flour Mill Operation ....May 29—p 30

KANSAS STATE UNIVERSITY:
Buhrstones Symbolic of Technical Progress ....May 15—p 8
Contributors to Pilot Flour Mill....May 1—p 18; May 15—p 24
New Mill Building Dedicated ....May 29—p 62

LEGISLATION:
Impact of New Feed Grain Legislation May Resound Throughout Other Markets, With Wheat Men, Millers, Bakers Feeling Its Force ....April 3—p 55

MOISTURE:
Bulk Loading Claimed by Engineers Using Pneumatics ....May 1—p 25

OBITUARIES:
Atkinson, Fred M. ....May 15—p 14
Baum, Ellis C. ....April 17—p 59
Baum, Paul H. ....May 29—p 68
Bell, James Ford ....May 15—p 11
Bell, Mrs. James F. ....May 1—p 76
Bermel, Erwin ....May 15—p 68
Crawford, J. E. ....April 3—p 64
Ford, Lewis D. ....April 3—p 64
Gilster, A. L. ....April 3—p 64
Graves, Lewis V. ....May 15—p 68
Langley, James A. ....May 15—p 68
McMillan, Putnam D. ....April 17—p 59
Ruh, Milford C. ....June 12—p 68
Spohn, O. C. ....May 1—p 70

PUBLIC RELATIONS:
Check List ....May 29—p 46

WHEAT:
Analyzing Wheat Crop Estimates ....May 1—p 20
Kansas Holds a Wheat Field Day and Dedicates a New Mill Building ....May 29—p 62
Natural Sugar in the Endocarp Layer of Bread Wheat: Its Effect on Flour Milling ....April 3—p 36
Precision Graders; Application and Operation in the Wheat Cleaning Flow ....May 1—p 46
Prices and Loan Rates ....June 12—p 18
Problem of Wheat Carryover ....May 15—p 18
Prospects for Wheat Prices ....June 26—p 18
World Wide Wheat Problems ....April 3—p 44
World Wheat Trade Is Growing ....April 17—p 46

June Flour Output, Average Below May

U.S. wheat flour production amounted to 20,511,104 cwt. in June, according to estimates made by THE Northwestern MILLER, and daily average output was 932,323 cwt. Both figures are slightly below the official May figures, as reported by the Bureau of the Census, but a shade above June of last year.

June total output of 20,511,104 cwt. dipped 236,896 cwt. (1.1%) from May but rose 152,104 cwt. (0.7%) over June of 1960. The census bureau reported total May offtake at 20,748,000 cwt. and the previous June at 20,359,000 cwt.

Daily June production of 932,323 cwt. was 10,677 cwt. (1.1%) below May but 7,323 cwt. (0.8%) over June of last year. The official daily offtake for May was 943,000 cwt. For June of 1960 it was 925,000 cwt. For purposes of comparison, each of the three months had 22 working days.

For 1961 to date, in round numbers, March remains the peak month with total output of 22,666,000 cwt. January is the second strongest month with 22,631,000 cwt., followed by February with 21,240,000 cwt; May, 20,748,000 cwt.; June, 20,511,000 cwt., and April with 18,701,000 cwt.

January leads the year so far for daily average output with 1,078,000 cwt.; February is next with 1,062,000 cwt.; March, 985,000 cwt.; May, 943,000 cwt.; April, 935,000 cwt., and June with 932,000 cwt. «

• • •

20,748,000 Cwt. Flour Produced During May

Wheat flour production in May was 20,748,000 cwt., averaging 943,000 cwt. a working day, according to the Bureau of the Census. This compared with an average output a working day of 935,000 cwt. in April and 915,000 cwt. in May of 1960.

In May, wheat flour mills operated at 87% of capacity compared with 86.2% in April and 84.9% in the previous May.

Flour mills ground 47,116,000 bu. wheat in May against 42,394,000 bu. in April. Wheat offal output was 385,354 tons.

Rye flour production in May was 157,000 cwt. and rye grindings amounted to 358,000 bu. There were 1,884 tons of offal produced.

Figures represent production of all commercial mills in the U.S. About 97% of the totals were reported during 1960 and 1959 by 284 mills having a daily capacity of 401 cwt. or more and the balance estimated. The estimated portion is based on the 1958 Census of Manufactures. «

U.S. Wheat Flour Production June, 1961

Mills reporting to THE Northwestern MILLER account for approximately 78.6% of the total U.S. flour output. Figures for Buffalo, Kansas City and Minneapolis represent 100% of production for those points in hundredweights.

Minneapolis	836,111
Interior Northwest	2,430,456
NORTHWEST	3,266,567
Kansas City	1,272,950
Interior Southwest	5,068,491
SOUTHWEST	6,341,441
BUFFALO	2,364,461
CENTRAL & S.E.	2,429,284
N. PACIFIC COAST.	1,719,975
TOTAL	16,121,728
Adjusted	78.6
U.S. TOTAL	20,511,104
DAILY AVERAGE	932,323

Research Appointment

Arthur S. Pearson, formerly of General Foods Corp., has been appointed director of market research for the Ralston division of Ralston Purina Co., which handles all of the firm's grocery products business.

Mr. Pearson will head a newly created market research department, headquartering in St. Louis. For three years he was manager of market research for General Foods' Jello division, earlier was an advertising agency research account executive, and prior to that was a market analyst in Minneapolis for the Pillsbury Co. «

George Urban Milling Co.
More Than 100 Years of Milling
BUFFALO, NEW YORK

ROLL GRINDING
and CORRUGATING
Also NEW ROLLS *for Sale*
TWIN CITY MACHINE CO.
Minneapolis, Minn.

RED WING FLOUR
Milled in Minnesota for Over 40 Years
THE RED WING MILLING CO.
Red Wing, Minn.

District 10, AOM, Packs Strong Program Into Two-Day Conference

Golden West District No. 10, Association of Operative Millers, has written its 1961 summer conference into history, a two-day program packed with technical papers, the vital business of electing new officers, and a liberal portion of entertainment.

California State Polytechnic College, San Luis Obispo, was the focal point for the technical session, which covered subjects ranging from fire prevention on through maintenance, conveying, control feeding and bin flow characteristics.

As new officers the district elected Fred Karlsrud, Albers Milling Co., Los Angeles, chairman, and Ernest R. Fox, the Pillsbury Co., Sacramento, as vice chairman. Gene Thomas, California Mill Equipment Co., Burlingame, was reelected secretary-treasurer. District committeemen will be Terry Taylor, General Mills, Lodi (one year); James Fox, Pillsbury, Los Angeles (two years), and LaVor Robertson, GMI, Los Angeles (three years).

Members and guests spent one evening at a "get together" which included a reception by the allied trades and a dinner, plus entertainment by a vocal group from California Polytech.

On hand to background the district regarding national AOM affairs, particularly the recent annual technical conference in Minneapolis and plans for the next one, was Don S. Eber, executive vice president. He also displayed AOM's new banner presented during the 1961 conference by the association's banquet committee. Mr. Eber concluded his part of the program by inviting one and all to the 1962 conference to be held at the Denver Hilton Hotel next May 14-17.

Technical Papers

Moving into its technical papers, the district heard reports on a broad variety of topics. T. G. Burdsal, feed production superintendent for GMI, led off on the subject "Making Yesterday's Mills Do Today's Business." Fred Spaeth, chief engineer, Pacific Fire Rating Bureau, covered "Fire Prevention as It Pertains to Milling."

Other papers were: "What's New in Corrugated Bulk Containers," William H. Bronte, president, Corrobilt Container Co.; "Planned Maintenance," Lee W. Green, maintenance engineer, grocery products division of GMI; "Uses and Application of Stream Indicating Equipment in Flour and Feed Milling," J. L. Beals, Wallace & Tiernan, Inc.; "Dry Stoning vs. Wet Stoning," Alan Croft, the Simon-Carter Co., and "Accurate Continuous Conveying and Control Feeding," Jack Chadima, the Conveyor Co. F. W. Eggleson, Butler Manufacturing Co., showed a film, "Bin Flow Characteristics." Michael L. Tracy, GMI, Vallejo, outgoing chairman of the district, presided.

"Golden West" members climaxed their meeting with a barbecue on the college campus. Plans have been completed to meet next at the Fresno Hacienda, Fresno, Cal., Jan. 26-27. Next June 22-23 they will convene again at San Luis Obispo. «

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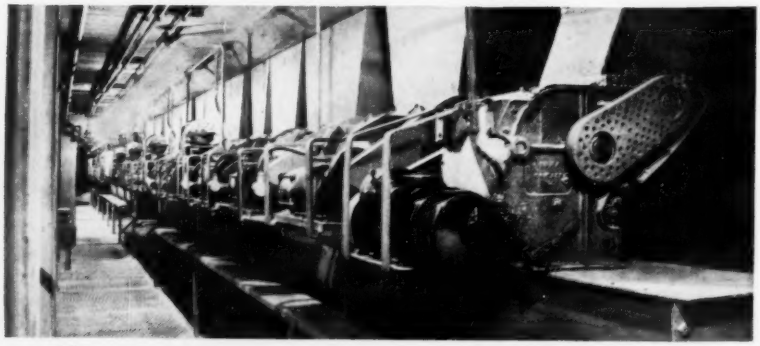

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Flour blending systems of Draver Micro-Master Feeders benefit users two ways: micrometric control of feeding rates assures high and consistent accuracy—and the system operates with Draver dependability and economy. Micro-Master drive is available on smaller size Dravers, too—to feed enrichments or additives for self-rising flours and mixes.

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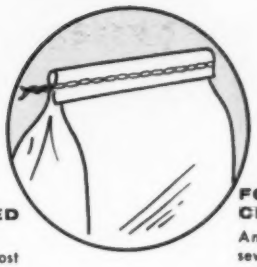

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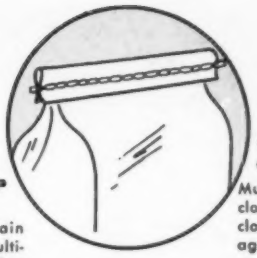

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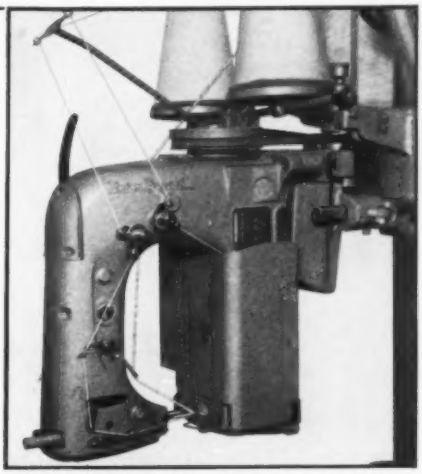
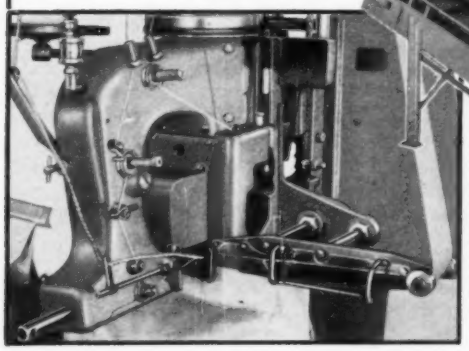


STYLE 53600H (above) sewing head is designed for high speed bag closing.

CLASS 20500 (left) machines are heavy-duty, high production units for closing medium and heavy weight bags. Available with power-driven horizontal conveyor, inclined conveyor, or both; or with conveyor transmission unit only, for plant production line.



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Sewing Head (left) is designed for making tape bound closure on multiwall paper bags. Automatic tape clipper.

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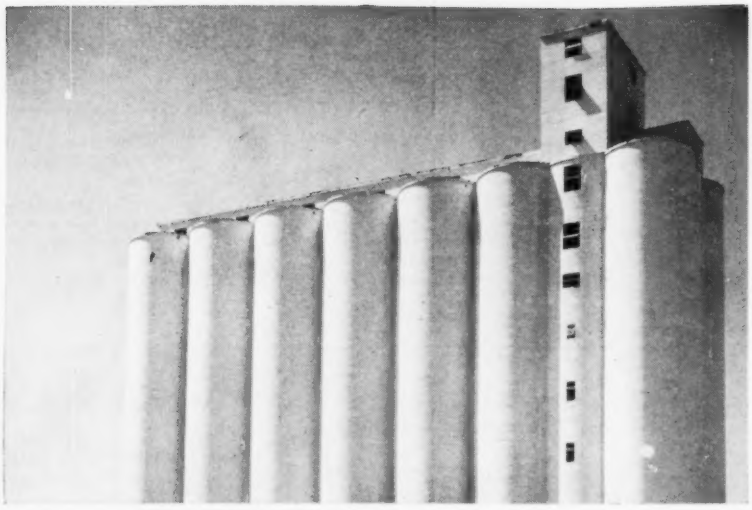

Is hermetic storage of U.S. grain practical? Can it be used as an emergency measure where conditions would be suitable for air-tight grain storage? Conventional methods now in use are preferable to air-tight containers. But the fact remains that hermetic facilities have been used in other countries, making the subject of sufficient interest to warrant review, which is just what Dr. Cotton does.

What About—

Air-Tight Storage of Grain?

By RICHARD T. COTTON

INSECT LIFE CAN BE destroyed and reinfestation prevented by placing infested grain in hermetically-sealed containers. This was shown by Dendy as far back as 1919 in a report to the Royal Society, London, in which he pointed out that insect death under such conditions is caused by exhaustion of oxygen in the containers, and the build-up of carbon dioxide.

Simply put, respiration of the insects, the micro-organisms in the grain—and the grain itself—use up the oxygen and produce the carbon dioxide.

There's another aspect of the subject worthy of examination. This is the possible use of hermetic storage for temporary protection of damp grain which would spoil in conventional storage facilities. When moisture content of grain rises, respiration of the grain and the mold fungi are increasingly responsible for changing the atmosphere in the container.

Studies Reported

In 1955 Bailey reported the results of his studies on the effect of air-tight storage on insect pests of stored grain, tests in which he confined insects in prepared atmospheres containing different proportions of oxygen and carbon dioxide to determine the conditions required for causing their death.

Whereas normal air contains 20.9% oxygen and .03% carbon dioxide, Bailey found it necessary to increase the carbon dioxide content of the atmosphere to 40% or to reduce the oxygen content to 2% to kill all stages of the granary weevil. He chose the granary weevil for his tests because it is a serious pest of stored grain and one of the most resistant to conventional methods of control.

With carbon dioxide normal, there was no mortality of granary weevil adults in 35 days in atmospheres containing 10, 5, and 3.1% oxygen. The mortality was 100% in 17 days in 2.05% oxygen and in 15 days in 1.3% oxygen. He concluded that in the hermetic storage of grain, depletion of the oxygen content of the airspace was more important in causing the death of insects than increased production of carbon dioxide.

At the same time he considered it impractical to maintain 40% carbon dioxide in grain bins for the period required to kill insects. With these figures in mind it is interesting to consider the actual build-up of carbon dioxide in underground grain storages in Argentina as reported by Lopez (1946). At the end of 644 days of storage the carbon dioxide content was 17.9%, whereas the oxygen content was reduced to 1.8%.

Underground storage was one of the first methods used by primitive man to conserve surplus grain supplies. The ancient Egyptians are said to have prepared for years of famine by storing surplus grain underground under conditions approaching hermetic storage. The American Indians stored grain in pits up to eight feet in diameter and 10 ft. or more deep in — or outside — dwellings, and in curious sand mounds. Pit storage of grain is still common in dry areas of Egypt, India and other regions. Walls and floors are usually lined with straw, chaff or other materials to prevent spoilage. However, deterioration of grain from dampness is the greatest hazard with this type of storage.

More than 100 years ago attempts were made in France to store grain in underground concrete containers lined with bolted or riveted metal plates. Such stores were used more or less successfully to supply grain for prisons and military garrisons at a number of locations. Experience proved that the riveted, metal liners were not tight enough to exclude moisture, and deterioration of the grain was such that after a few years this type of storage was abandoned.

In 1929 an attempt was made to store wheat underground in Kansas (Shellenberger and Fenton, 1952). Two-and-one-half tons of wheat were placed in a pit lined with concrete. After four months of storage the en-

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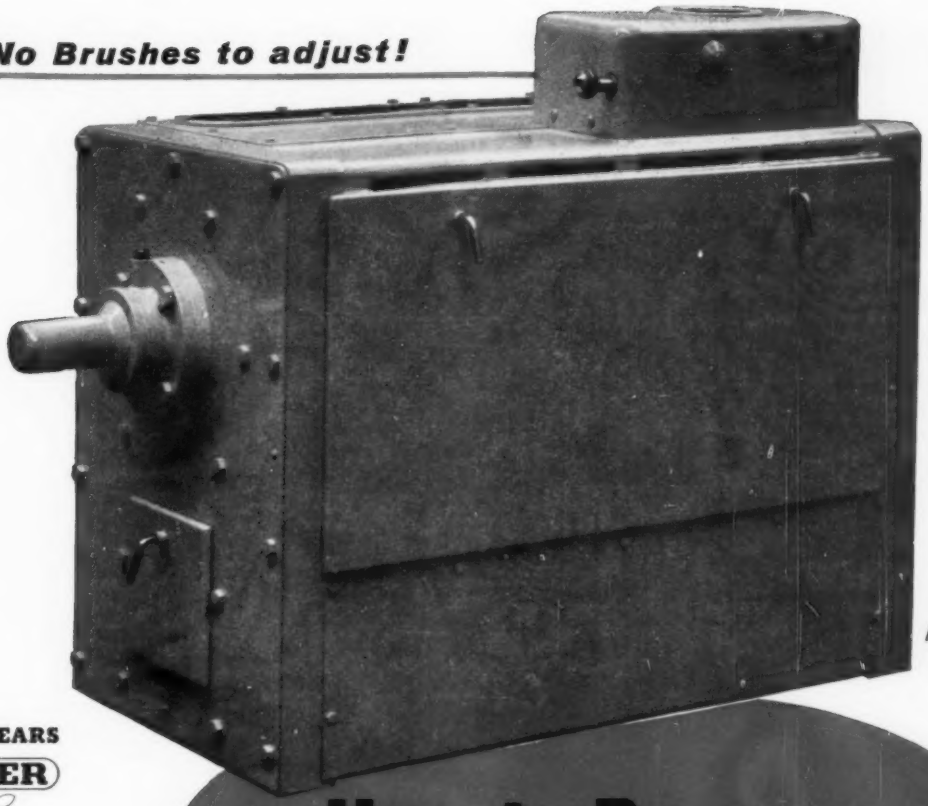

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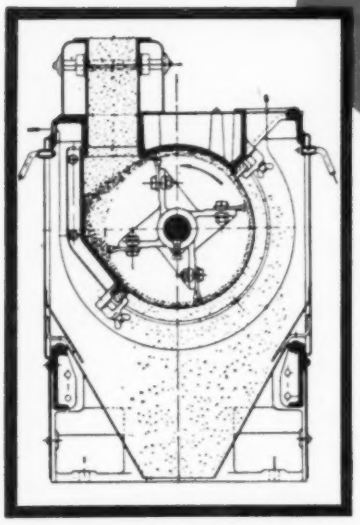

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Easy adjustment. A unique inlet regulation controls the length of time the product is exposed to impact action by shortening or lengthening the effective path of the bran through the machine. Changes can be made quickly while machine is running.

Quality product. Bran is large and clean after leaving the machine and the flours are very fine and light in color. Since there is no actual rubbing action, power requirements are low.

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Air-Tight Storage (Continued)

tire mass had molded because the concrete walls and floor did not constitute a water barrier.

In 1937-38 M. Blanc of the French "Genie rural" carried out tests on storage of wheat in above-ground, hermetically-sealed metal bins made with welded-steel plates. Wheat with a moisture content of 16.2% was successfully stored for two seasons. In recent years the method has been adopted to some extent on farms in France for storage of wheat with moisture contents ranging up to 18-19%.

Both cylindrical and hexagonal bins are used, with capacities of 100 to 150 tons.

Hyde (1953) reported that wheat from these bins, examined after eight months of storage, had a sweet-sour alcohol smell, but was normal in appearance, free-flowing and entirely mold-free.

In 1939 Argentina, faced with a grain storage problem arising from large harvests and little chance for exportation, appointed C. O. Lopez, an engineer, to investigate methods of grain storage. In 1941, after a study of pit storage methods by natives in various parts of the world, Lopez (1946) recommended construction of underground concrete storage pits, designed to be impermeable to gases and water vapor.

Preliminary tests with this type of storage proved so satisfactory that provision was made by the Argentine government to construct storage facilities for several million tons of grain. Similar storages have been constructed in Paraguay, Venezuela and Uruguay. Experimental pits have also been built in Tanganyika, Nyasaland, Nigeria, and the Sudan.

The pits resemble concrete swimming tanks. Dry grain is filled into the pits and heaped up in a mound which is covered with a waterproof, gas-tight flexible material sealed to the concrete edges. Some newer types in Argentina are equipped with permanent concrete roofs in place of the bituminized paper of others. Pits should be constructed on raised ground at points where the standing water table is never within 20 ft. of the surface, and drainage through the subsoil is rapid. When properly sealed, wheat reportedly remained in fit condition for milling up to 10 years. Germination falls rapidly after the first year, and there are some changes in color and odor.

Storage Above Ground

Air-tight metal bins above ground appear satisfactory for storing low-moisture grain. Little effect on germination or milling and baking properties is reported with grain of 12% moisture or below. However, one problem associated with modern, mechanized grain harvesting is the increased amount of grain harvested at moisture contents above the safe storage level. As an alternative to drying, hermetic or sealed storage bins have been suggested for holding grain of high moisture, principally feed grains on the farm. Spoilage of high-moisture grain is primarily due to microorganisms. Exclusion of oxygen from the storage promises to reduce this cause of grain spoilage.

Oxley and Hyde (1955) reported results of long-term storage of wheat at three moisture levels, 12-14%, 18-19% and 23-24%, under laboratory conditions and in 10-ton welded steel bins. They found that most changes take place in the first few months of storage.

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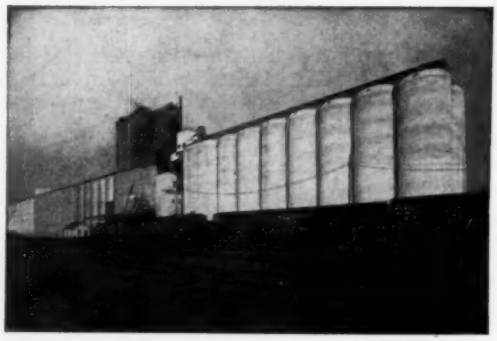

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free-flowing after 18 mos. of storage even in the case of the 23-24% moisture wheat. A sour-sweet smell develops in wheat when the moisture content is above 14%. In the case of 23-24% moisture wheat, the smell is accompanied by a strong flavor which carries over into the flour and to some extent into the bread.

Viability of the grain is rapidly reduced and may reach zero in 13 weeks at the 23-24% level. At 18-19% moisture germination is reasonably well maintained for 20 weeks or more. The mold flora of damp grain is reduced to a very low level in the first few weeks of hermetic storage, and at 23-24% moisture is virtually eliminated.

In the U.S. air-tight storage for corn or grass silage has been used to some extent for a number of years, Foster et al (1955) observed that corn in sealed bins did not deteriorate to the extent that would be expected if stored in conventional bins, and there was no insect damage.

Sealed storage did not prevent fermentation processes which give rise to changes in color and odor. Odor was increased and color darkened by high moisture contents, longer storage periods, and higher grain temperatures. Corn of 18% moisture did not change measurably in storage for six months, but in one year darkened slightly and developed a sour odor. Corn of 23-24% moisture developed a sour odor in less than one month, and quickly darkened in color. Sharp increases in fat acidity occurred toward the end of the first storage year. The corn was difficult to handle with portable grain elevators and molded rapidly upon removal from the sealed bins.

Corn stored for two seasons at 27% moisture was fed to hogs with no evidence of impaired feeding val-

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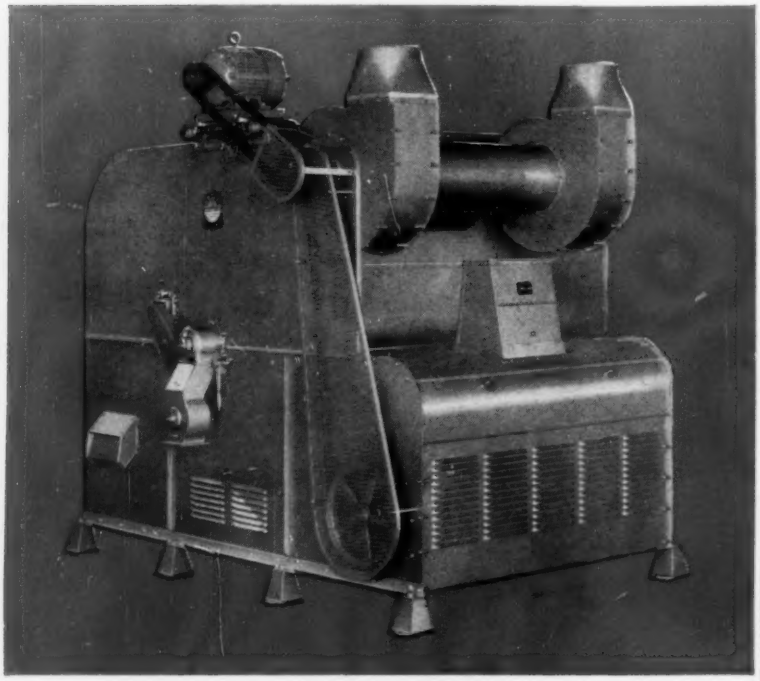

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Better Health thru Better Nutrition

ue. The viability of 11% and 13% moisture corn after 10 months storage was 90% and 85%. However, 18% moisture corn retained a viability of only 1% after 18 months and the viability of 23% moisture corn was reduced to zero in 3 months.

Natural Gas Used

A type of storage in use in California for protecting stored alfalfa meal from insects (Kruger 1960) involves use of a natural gas generator to produce an inert atmosphere in steel bins 45 ft. high and 44 ft. in diameter.

Natural gas is used in the generator to produce an inert atmosphere composed of approximately 84% nitrogen, 10% carbon dioxide, .023% oxygen, with small percentages of argon, hydrogen and carbon monoxide. The inert atmosphere is forced into the bins for 48 hrs. before filling and is maintained during filling operations. During storage there is a constant flow of inert atmosphere through the bins. The effect on insect life is very much the same as that of hermetic storage.

Up to the present time only two practical methods of hermetic storage of grain are in operation. However, the recent proposal to use air-tight plastic bags for grain storage may provide an additional one.

The use of air-tight plastic bags recently was proposed for storing grain under a partial vacuum (THE MILLER, Jan. 9, 1961, page 30). Plastic bags are filled by means of a machine, the Vac-U-Vator, following which the machine is reversed to create a partial vacuum. The bags reportedly are impervious to weather changes and attacks by rodents, and can be stored under or above ground.

With partial removal of the oxygen, this type of storage would seem to have many of the aspects of hermetic storage. These storage bags are still being tested. «

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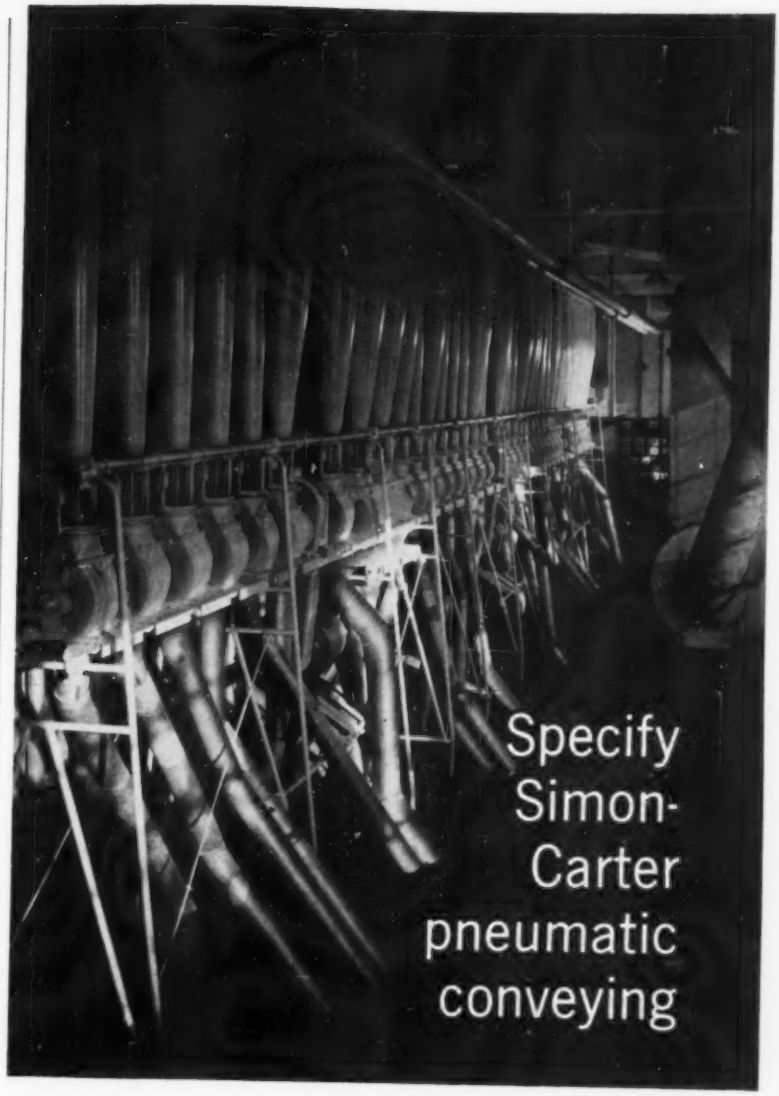

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A top level change at Sturtevant Mill Co., Dorchester, Mass., brings **Clayton F. English** to the position of board chairman. He succeeds **William T. Doyle**, now retired, after 57 years with the firm. Mr. English joined Sturtevant in 1947 as production manager, advanced to executive vice president in 1957, and succeeded the late Joseph L. Sturtevant as treasurer in 1958. He continues to serve in both capacities in addition to his new duties as chairman of the board. Mr. Doyle, who came to the company in 1904, pioneered in its development of fine grinding and air classification. He became president in 1947 and chairman of the board in 1957, with **George P. Towle** succeeding him as president at that time. Mr. Towle continues as president and Mr. Doyle will remain on the board of directors.

●

Bartlett-Snow Pacific, Inc., has advanced **Don E. Reed** to manager of its Triumph Division, giving him complete responsibility for its entire Triumph line of equipment and machinery. Mr. Reed joined the C. O. Bartlett & Snow Co., one of the predecessor companies of Bartlett-Snow Pacific, in 1960 as national sales manager, and has spent his entire career serving the grain and feed industries. Headquartering at the Cleveland, Ohio, plant, Mr. Reed will take charge of product distribution, selection and training of distributors, product development, customer service, sales promotion and all similar management duties for the entire Triumph line. He was with Greenwich Mill & Elevator Co. 10 years, worked as sales manager of Shelby Manufacturing Co., and served as a manufacturer's representative for several lines of grain dryers, conveyors and other equipment in Ohio and Indiana before joining Bartlett-Snow, reports **Dan S. Mortensen**, executive vice president and general manager. As another change, the firm has named **Harold R. Skeels** as manager of the materials department of the Bartlett-Snow Division. Mr. Skeels joined C. O. Bartlett & Snow as an engineering trainee immediately following graduation from Michigan College of Mining & Technology in 1949, became plant engineer in 1951, chief methods engineer in 1952 and production control manager in 1955. In his new capacity Mr. Skeels will be headquartered in Cleveland, where he will be responsible for production scheduling, procurement, material control and pricing of the company's product lines. Bartlett-Snow Pacific was recently formed by the consolidation of C. O. Bartlett & Snow Co. and Pacific Foundry & Metallurgy Co.

Don E. Reed

H. R. Skeels

●

General Mills, Inc., has added **Dr. Owen K. Ash** to the staff of its central research laboratories in Minneapolis, where he will work as project leader in the exploratory food development department. Dr. Ash has completed the requirements for a Ph.D. in biochemistry at Brigham Young University, where he held a research fellowship from the National Institutes of Health. He also holds a B.S. degree from Brigham Young.

●

Robert G. Lewis, deputy administrator for price and production, U.S. Department of Agriculture, has been elected vice chairman of the International Wheat Council. **Arnold A. Garthoff**, assistant to the director, grain division, becomes vice chairman of IWC's executive committee.

●

Coordinating technical aspects of new products development for General Foods Corp. now becomes the responsibility of **W. M. Tucker**, appointed coordinator at the firm's research center in Tarrytown, N.Y., reports **Robert N. DuPuis**, vice president, research. Mr. Tucker has been associated with General Foods' research activities since 1946, when he joined the company as an associate engineer. He has served as plant engineer, staff technologist for research and development, and on the corporate new products plans board and as manager of development services.

●

The bag division of St. Regis Paper Co. is expanding its sales operations to meet increasing demands of several industries, including agriculture and food products. The move involves creation of new sales territories east of the Mississippi and new sales management appointments. **Harry W. Walker**, formerly bag division sales manager for the Ohio Valley region, advances to director of operations, sales, for a new Great Lakes-Gulf territory. He will headquarter in Chicago, assisted by **William A. Harris**, who continues as sales manager of the Chicago region, and **John B. Brent**, continuing as southern region sales manager at Birmingham, Ala. **Don R. Russell** becomes Ohio Valley region sales manager at Columbus, succeeding Mr. Walker in that position. He comes from New York, where he served two years as multiwall products manager, following service with St. Regis at Minneapolis and Cincinnati. Newly appointed regional sales managers to assist **Charles A. Woodcock**, director of operations, sales, eastern area, are: **William S. Doolan**, the newly-formed South Atlantic region, Savannah, Ga.; **Robert E. Harrison**, mid-Atlantic region, Baltimore; **William T. Orr**, northeastern region, New York City, and **William H. Versfelt**, metropolitan New York.

H. W. Walker

Don Russell W. S. Doolan

●

Great Plains wheat growers plan to step up efforts to encourage research in utilization of wheat and wheat products. A 1961-62 utilization study program has been drawn up by

Howard Morton, Longmont, Colo., who has been named to coordinate efforts of growers. The Nebraska Wheat Commission has agreed to finance the program on behalf of Great Plains Wheat, Inc. A limited budget will prevent the grower-supported association from actually engaging in research, reports Mr. Morton. Instead, he plans to cooperate with federal, state and private groups to encourage research and evaluation of new wheat products, plus keeping growers informed about technological advances, including those in milling, and their impact on the wheat industry and its markets.

●

William P. Bulger, Red Star Yeast & Products Co., has been elected president of the Milwaukee Chapter, American Marketing Assn.

●

Glenn E. Hargrave has been elected vice president of the Paniplus Co., Kansas City, taking on the additional responsibility while continuing as sales manager, which position he has held since 1951. Mr. Hargrave has had broad, diversified experience since graduation from the Siebel Institute in 1925, but has always been close to the production of bread. He served five years as plant superintendent and production supervisor for several bakeries in the Midwest, later was plant manager of a wholesale bakery in the Southwest. He joined Paniplus in 1932 as a sales representative, operating from Kansas City, Pittsburgh and Chicago. Since appointment as sales manager in 1951 he has had responsibility for sale of dough conditioners and enzyme supplements in the U.S. and Canada. He is a member of the American Society of Bakery Engineers and served as vice president and program chairman in 1949. Mr. Hargrave also is a member of the American Association of Cereal Chemists. Announcement of his appointment as vice president of Paniplus was made by **William Stoneman, Jr.**, president.

G. E. Hargrave

●

Fuchs Baking Co., South Miami, Fla., has advanced one of its veteran executives to vice president of sales. He is **Frank N. Irwin**, who joined the firm in 1938 as a route salesman. Mr. Irwin moved up to sales supervisor in 1943, became divisional sales manager in 1947, and sales manager of cake and sweet goods when the firm expanded in 1951. He took on additional duties in 1955 when the restaurant and institutional division also was placed under his direction. He was appointed director of sales for the entire organization in 1956 and given charge of advertising in 1957. In a joint statement announcing Mr. Irwin's appointment, **L. L. Chandler**, president, and **R. E. Chivers**, vice president-general manager, stated that the advancement is intended to help streamline organization of the baking firm.

Frank Irwin

●

A new board of directors has been elected for Hachmeister, Inc., which firm was acquired recently by the H. J. Heinz Co. in an exchange of stock. **A. W. Remensnyder**, president of the baking ingredients manufacturing firm

A. W. Remensnyder

H. L. Dunker

before its acquisition, has been elected to continue in that position, and as a member of the board of directors. **Harvey L. Dunker**, manager of the eastern manufacturing area for Heinz, becomes executive vice president of Hachmeister, and also is on the new board. **John L. McCain**, former Hachmeister vice president, continues with that title and will be in charge of production, while **Dr. Hermann Birnbaum**, formerly head of research, becomes vice president for research and quality control. On the new board, in addition to Mr. Remensnyder and Mr. Dunker, will be **Frank Armour, Jr.**, president of Heinz; **B. Dent Graham**, executive vice president of Heinz-U.S., and **R. Burt Gookin**, vice president of finance for Heinz. The new Hachmeister management group will have Mr. Gookin as treasurer and **Ralph W. Hunter**, secretary of Heinz, as secretary of Hachmeister.

●

Carleton F. Evans has been named assistant midwestern regional sales manager of International Paper Co.'s Bagpak Division. He joined International Paper in 1949 as a sales trainee and was stationed in Atlanta, Ga., un-

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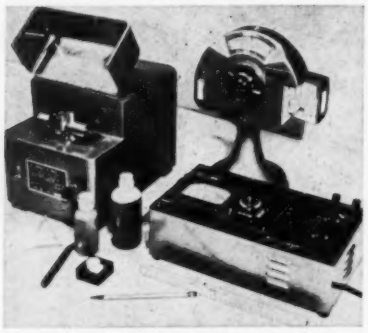

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til last year, when he joined the midwestern force of Bagpak in Chicago.

●

Robert L. Johnston has joined the baking division staff of the Joe Lowe Corp., New York, as market development manager. Mr. Johnston has had 13 years of experience in sales and sales management, working with the baking industry and jobbers who serve it. Mr. Johnston was with the Pillsbury Co. prior to accepting his current position with Joe Lowe Corp.

R. L. Johnston

●

Mr. and **Mrs. Iven Kilmer**, Alva, Okla., were honored recently at a reception celebrating their 50th wedding anniversary. Mr. Kilmer was supervisor of the Alva Roller Mills until his retirement some years ago.

●

Oscar J. Nelson, superintendent of King Milling Co. at Lowell, Mich., and a staunch worker for the Association of Operative Millers, has retired. He served as superintendent from 1945 and will be succeeded by **Steven Bauer**, but he will remain with King Milling until Jan. 1 as a consultant. Mr. Nelson has served in all the offices of AOM's District 6 and currently is secretary-treasurer of the district. He was international president of AOM in 1955. Mr. Bauer has been with King Milling Co. since 1945 and is a graduate of the Department of Flour and Feed Milling Industries at Kansas State University, Manhattan.

●

John R. Danbury, mill superintendent for Commander Larabee Milling Co. at Kansas City, has purchased a ranch bungalow home at 5127 N. Cypress St.

●

John Wenn, Jr., has been appointed director of the Cincinnati commodity office, Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture. Mr. Wenn has had 27 years of government service, of which 15 years have been with USDA. He transferred to Cincinnati from the Portland, Ore., commodity office last September. At Cincinnati he succeeds Harley E. Banks, now retired. «

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FACTUAL PROPERTY VALUATIONS

Photo Page—

IMPROVEMENT OF wheat quality is the aim of Colorado's new Colorado Wheat Council, and the organization will be headed by these men. They are, left to right: James E. Thornton, representing the Colorado Wheat Administrative Committee, chairman; Al Gamble, Farmers Union Elevator, vice chairman, and Jay Hickert, also of the wheat administrative committee, secretary-treasurer. All are on the council's executive committee, which also includes Herschel Harrison, Snell Grain Elevator; Earl F. Cross, Colorado Milling & Elevator Co.; C. J. Downing, Sr., Town Talk Bakery, and E. W. Sprague, Colorado Wheat Growers Assn.

●

TWO MAINTENANCE engineers at the Buffalo plant of General Mills, Inc., are congratulated for winning a $5,000 award for their electric eye device to save cartons, reduce mechanical wear and raise production. They are Howard J. Ewert, electronics specialist, far right, and Joseph Stefeniak, lead packaging mechanic, second from the right. At the left, congratulating them, is Howard E. Richard, grocery products packaging supervisor at Buffalo. In the background is Craig Mathews, assistant package foods plant superintendent. The award is the largest for a single idea in the history of the employee suggestion program, and may go higher if the idea proves practical at other plants.

●

HERE ARE the officers who will guide activities of Great Plains Wheat, Inc., during the year ahead. From left to right they are: Lester L. Mort, vice president and director of the Washington office; Otis Tossett of Lansford, N.D., vice chairman of the board of directors; Richard Lewis, Arapahoe, Neb., board chairman, and Clifford R. Hope, Garden City, Kansas, president. The secretary, also of Garden City, is Ora V. Martin.

NEW •IDEAS •PRODUCTS •SERVICES

This reader service department announces the development of new and improved products, new services and new literature offered by manufacturers and suppliers. Claims made in this department are those of the firm concerned. Use the accompanying coupon to obtain the desired information.

Fraction Collector

Scientific Supply Co. has issued a fact sheet on its Sisco CCA automatic fraction collector for use in food processing laboratories, and other areas of industry. The automatic fraction collector comes complete with totally enclosed cabinet, automatic control panel wired for time flow, volumetric siphon, drop counting accessories and manual control. It has an automatic positioning mechanism plus a photoelectric volume controller, automatic solenoid valve, photo-electric housing and other features. The company states that the unit has a lifetime lubricated drive motor, self-aligning turntable bearings to prevent overloading, and a cabinet cover to protect the interior from contamination. The unit is said to be adaptable to a complete line of accessories and attachments.

Circle No. 4900
on Reply Form for Details

Inspection Magnifier

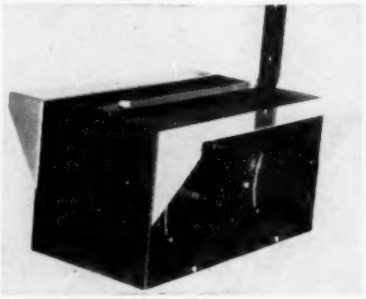
A disc-type accessory to be used with the Flash-O-Lens illuminated magnifier for inspection of such products as grain and feed can be provided by E. W. Pike and Co., Inc. The disc fits into the bottom housing of 5X and 7X Flash-O-Lens models. It has a series of concentric circles for fine

inspection and identification work. The illuminated magnifiers are available in both battery operated and electric plug-in models. All component parts on all models are interchangeable, states the manufacturer.

Circle No. 4901
on Reply Form for Details

Control Signal

A grain truck traffic control signal light designed for orderly control of traffic during the grain receiving season has been developed by Hot Spot



Detector, Inc. The signal consists of sets of green and red "stop-and-go" lights and is operated by the elevator scaleman to direct incoming and outgoing traffic on and off the scale.

Circle No. 4902
on Reply Form for Details

Air-Powered Vibrator

The Cleveland Vibrator Co. is offering a lightweight, air-powered vibrator for emptying railroad hopper cars. Although the vibrator weighs less than 7 lb., it can create a vibratory force of over 1,000 lb., according to Cleveland Vibrator. Designed to fit a standard railroad hopper car bracket, the vibrator can be lifted from its bracket mounting and moved without loosening or tightening bolts, clamps or other attaching devices. A built-in handle facilitates removal and carrying.

Circle No. 4903
on Reply Form for Details

Vaccum Systems

Stationary and heavy-duty portable vacuum-cleaning systems for flour mills, bakeries and other industrial plants are described in a bulletin available from Spencer Turbine Co. The company's vacuum producers are of the self-governing, multi-stage turbine type. The Spencer system employs two-stage separation, the first stage being a centrifugal separator which removes about 95% of the material. The remaining material is recovered in the secondary separator, a tubular filter device. The company also manufactures automatic discharge valves, rotary type automatic dumps and other equipment for the system.

Circle No. 4904
on Reply Form for Details

Dust Arresters

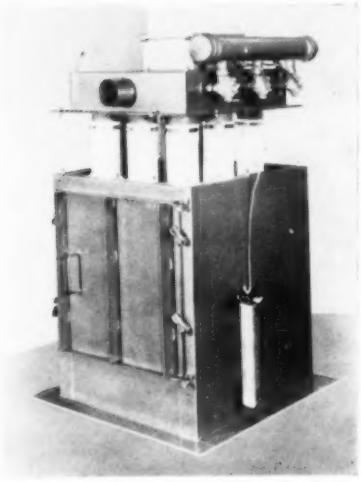
The Northern Blower Division of Buell Engineering Co. is offering an eight-page brochure covering automatic bag-type dust arresters, said to collect dust without interruption during bag cleaning. The booklet gives design and assembly information and explains how the dust collector operates. There are diagrams of construction details and tabular information on dimensions and capacities. Construction details are given for such items as housing, bottom plates, bagholder frames and bags, plus specification tables itemizing engineering data for arresters in 25 capacity ranges.

Circle No. 4905
on Reply Form for Details

Bin Vent Unit

Pulverizing Machinery Co. is offering its "Mikro-Pulsaire" bin vent, a compact unit for mounting directly on a receiving bin to provide maximum dust collection efficiency and operational economy with pneumatic conveyor-receivers. The company reports that the unit is suited to fluidized solids systems for use on bins where the large plenum area reduces cleaning surge. The bin vent is a scaled down version of the ultra-high capacity "Mikro-Pulsaire" dust collectors used in the food, chemical and other processing industries. It features the "Mikro-Pulsaire" automatic jet-action cleaning principle in which electrically timed jets of high velocity air clean the filter elements, eliminating need for internal cleaning mechanisms and the cost of replacement

parts. The unit is offered in two basic designs, with filter bags projecting



directly into the customer's bin, or with its own filter housing for external mounting on top of the bin.

Circle No. 4906
on Reply Form for Details

Horizontal Mixers

Young Machinery Co., Inc., is offering a 12-page illustrated technical bulletin on horizontal mixers for free-flowing, granular materials. Design, technical and dimensional data are included for mixers ranging in capacity from ½ to 500 cu. ft. The catalog covers laboratory models and production units; standard, trowel-type and special units with adaptations for heating, cooling, drying or liquid additions; low pressure and high pressure steam or baffled water jackets. The bulletin is No. M/1058A, available upon request.

Circle No. 4907
on Reply Form for Details

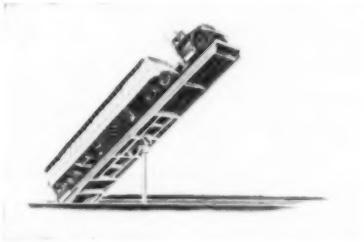
Moisture Tester

A commodity moisture tester, said to be precision engineered and self contained for measuring the moisture in grains and other granular materials, is described in a bulletin published by the U.S. Testing Co.'s Instrument and Apparatus Division. The moisture tester is said to provide broad use in both production and laboratory applications. The manufacturer claims that the instrument performs a complete determination in less than 30 seconds. A large sample chamber reduces the number of tests required to obtain representative moisture values. This chamber is removable and serves as a scoop when used with grains and other loose materials. Copies of the bulletin can be obtained upon request.

Circle No. 4908
on Reply Form for Details

Truck Unloader

A truck unloader said to require only one fixed hydraulic cylinder has been developed and marketed by Straight Engineering Co., manufacturer of railroad car unloaders. De-



signed specifically to accommodate the large semi-trucks used for shipment of grain, the truck unloader is built to handle the heaviest loads with complete ease and safety, states the manufacturer. One feature is the single, fixed hydraulic cylinder which moves only straight up or straight down. The cylinder is supposed to eliminate lateral platform sway. The unit was designed to eliminate all flexible hose connections in the hydraulic line to the cylinder and requires only one set of "V" packing.

Circle No. 4909
on Reply Form for Details

Bucket Elevator

Universal Hoist Co. is offering its Model DD-6000 bucket elevator for high capacity material handling. The Model DD elevates 150 tons per hour of material weighing 40 lb. per cubic foot at 85% bucket filling, claims the manufacturer. Capacities of 7,440 cu. ft. per hour at 85% bucket filling are obtained at a belt speed of only 400 ft. per minute. Units are available which are self-supporting to 150 ft. The Model DD features two rows of steel buckets on 21 in. wide nylon belting. Heavy gauge materials are used throughout. Some of the accessories available are a service platform, ladder, hopper, motor bracket and optional drives. Free literature and specifications are available.

Circle No. 4910
on Reply Form for Details

Automatic Belt Cleaning

Sellers Injector Corp. has issued bulletin No. 448, describing its automatic belt cleaning system for use in processing plants. The system effectively cleans flat rubber and steel mesh belts, metal elevators and elevator belts. The four-page bulletin outlines benefits of the cleaning system and gives assistance to engineers planning installations by illustrating equipment installed in a typical plant. Photographs show the arrangement of sys-

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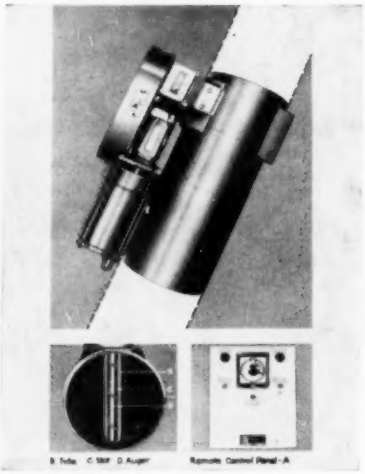
tem components. Specifications listed include nozzle pressures, water and steam pressure requirements. Piping requirements are also given. Copies of the bulletin are available without obligation.

Circle No. 4911
on Reply Form for Details

Sampling Device

Gustafson Manufacturing Co. has developed an automatic sampler for installation in any flow pipe where dry material is handled. The manu-



facturer claims that the device is especially practical for sampling grain, feed, dry chemicals and dry food products, among other materials. The automatic sampler can be pre-set at any time interval to take whatever samples are desired. Gustafson states that this eliminates hit-or-miss manual methods by extracting exact quantities at exact time intervals, cutting down the possibility of human error. The device takes full-diameter or full-depth sample of the flow pipe, to assure a true sample of the commodity.

Circle No. 4912
on Reply Form for Details

Airslide Pump

A self-discharging carrier for dry bulk materials, the Airslide Pump, is described in a two-page, color bulletin available from Fuller Co. The bulletin includes a description of material flow through the combination tank-pump, which is accomplished by means of fluidizing action of Airslide conveyors. Discharge control, equalization of air pressure and minimazation of abrasive action are also covered. The bulletin also explains how the Airslide Pump achieves an economical conveying. Illustrations include two dimensional drawings, a cutaway drawing and an installation photograph of the pump. Key dimensions for four different size units are listed in a separate table.

Circle No. 4913
on Reply Form for Details

Portable Unloader

Sprout, Waldron & Co., Inc., has announced the development of a portable pneumatic unloader for use with Airslide cars handling flour, sugar, starch and similar materials. The new unit, in addition to being portable, also is designed with hydraulic positioning controls which reportedly simplify and speed up unloading preparations. Further information on the unloader is available in Sprout-Waldron's bulletin No. 126-C.

Circle No. 4914
on Reply Form for Details

Grain Transfer Hose

A wide selection of flexible metal hose designed specifically for gravity or pneumatic transfer of grains and bulk materials where resistance to severe abrasion and corrosion are required is available from Universal Metal Hose Co. The company can provide "Steelflax" Type U-100, said to be a low cost, standard weight hose of electro galvanized carbon steel. It also offers Type U-120 in light heavyweight, medium heavyweight, extra heavyweight and superweight, made of hot dipped galvanized carbon steel. Another hose which can be provided is "Easyflo," in standard and heavyweight sizes, with special galvanized carbon steel or stainless steel liner. These and other types of metal hose available are described in the firm's bulletin No. IPB-Sec. 3A(a). «

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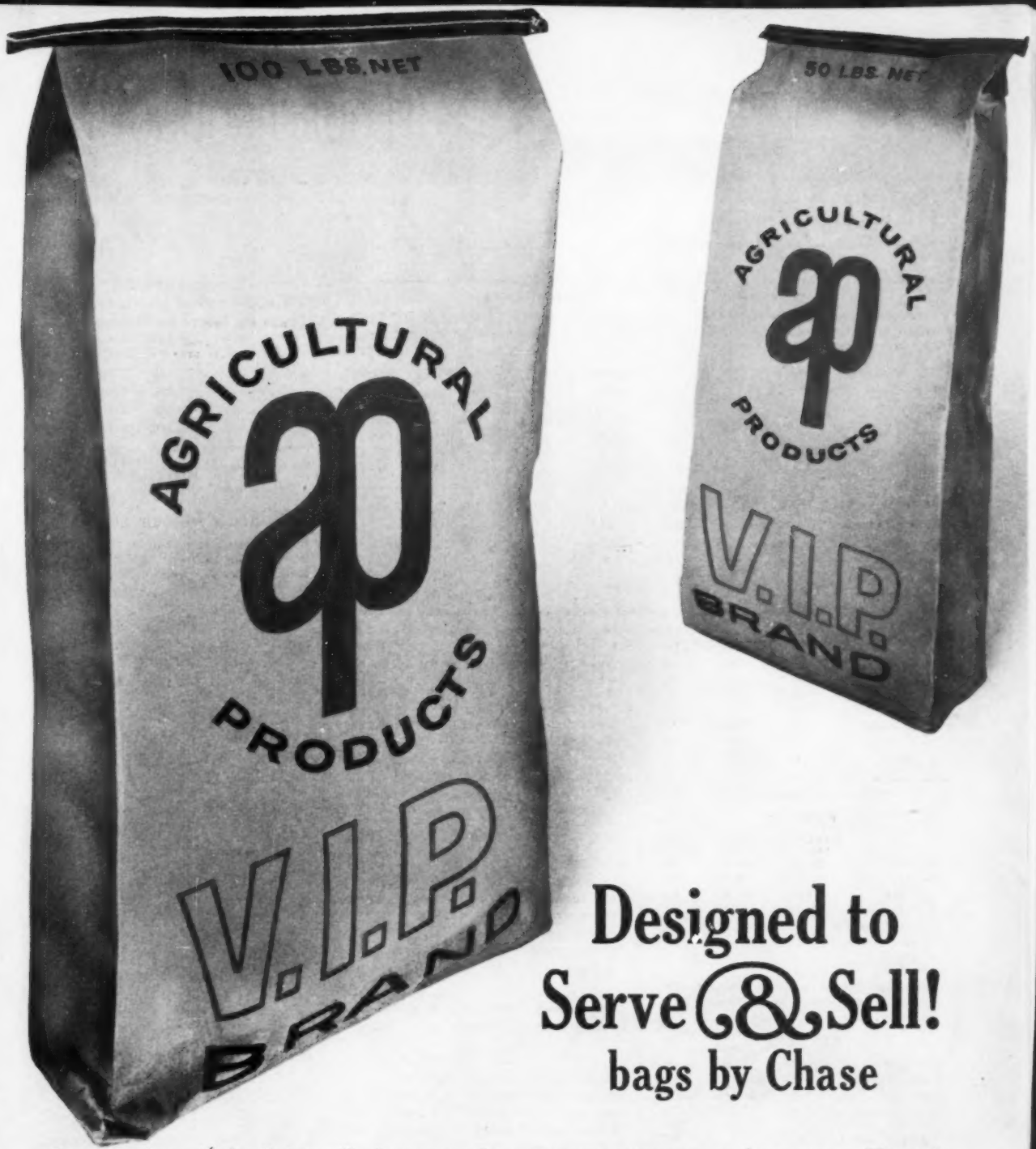

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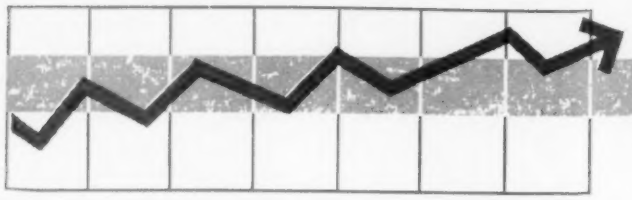


FLOUR PRODUCTION

A Statistical Service Provided Continuously for Readers of The Northwestern Miller for More than Half a Century.

WEEKLY FLOUR PRODUCTION, IN SACKS (CWT.)

Flour production in principal manufacturing areas by mills reporting currently to THE Northwestern MILLER with relationship of production to capacity and to the total estimated output of all mills in the U.S. expressed in percentages:

	July 2-9, 1961	*Previous week	July 3-10, 1960	July 4-11, 1959	July 5-12, 1958
Northwest	600,271	719,014	536,735	648,169	659,718
Southwest	1,250,468	1,530,297	1,216,737	1,440,975	1,383,322
Buffalo	527,618	524,039	516,441	527,153	545,204
Central and Southeast	465,291	501,571	558,594	623,831	501,718
Pacific Coast	328,863	384,104	378,085	421,785	314,215
Totals	3,172,511	3,659,025	3,206,592	3,661,913	3,404,177
Percentage of total U.S. output	78.6	83.5	75	75	75
Estimated total U.S. production	4,036,274	4,382,066			
Accumulated total this month	4,036,274				

*Revised.

	—Percentage of capacity operated in 5-day week—					Crop year flour production —July 1 to—	
	July 2-9, 1961	Prev. week	July 3-10, 1960	July 4-11, 1959	July 5-12, 1958	July 9, 1961	July 10, 1960
Northwest	81	97	74	89	99	600,271	664,936
Southwest	90	111	92	112	105	1,250,468	1,482,669
Buffalo	104	104	99	107	115	527,618	605,890
Central and S. E.	72	78	86	97	88	465,291	651,135
Pacific Coast	70	82	81	90	100	328,863	456,887
Totals	85	98	87	101	102	3,172,511	3,861,517

NORTHWEST

Minneapolis

	5-day week capacity	Flour output	% capacity
July 2-9*	185,100	129,416	70
Previous week	185,100	175,498	95
Year ago	194,500	162,023	83
Two years ago	231,100	177,628	77
Five-year average			95
Ten-year average			96

* 4-day week.

Principal interior mills in Minnesota, including Duluth, St. Paul, North Dakota, Montana and Iowa:

	5-day week capacity	Flour output	% capacity
July 2-9*	558,870	470,855	84
Previous week	558,870	543,516	97
Year ago	534,250	374,712	70
Two years ago	494,500	470,541	95
Five-year average			104
Ten-year average			95

* 4-day week.

CENTRAL AND SOUTHEASTERN

Mills in Illinois, Ohio, Michigan, Wisconsin, Indiana, Kentucky, North Carolina, Tennessee, Virginia, Georgia and eastern Missouri:

	5-day week capacity	Flour output	% capacity
July 2-9*	612,700	465,291	72
Previous week	612,700	501,571	78
Year ago	651,450	558,594	86
Two years ago	643,750	623,831	97
Five-year average			94
Ten-year average			87

* 4-day week.

SOUTHWEST

Kansas City

	5-day week capacity	Flour output	% capacity
July 2-9*	297,750	193,274	65
Previous week	297,750	339,706	114
Year ago	254,250	243,136	96
Two years ago	221,750	272,249	123
Five-year average			106
Ten-year average			99

* 4-day week.

Representative Mills, Outside of Kansas City (Including Wichita and Salina)

	5-day week capacity	Flour output	% capacity
July 2-9*	1,084,395	1,057,194	97
Previous week	1,084,395	1,190,591	110
Year ago	1,067,250	973,601	91
Two years ago	1,068,800	1,168,726	109
Five-year average			108
Ten-year average			99

* 4-day week.

BUFFALO

	5-day week capacity	Flour output	% capacity
July 2-9*	505,500	527,618	104
Previous week	505,500	524,039	104
Year ago	522,000	516,441	99
Two years ago	494,500	527,153	107
Five-year average			108
Ten-year average			104

* 4-day week.

PACIFIC COAST

Principal Mills on the Pacific Coast

California, Oregon and Washington Mills

	5-day week capacity	Flour output	% capacity
July 2-9*	471,200	328,863	70
Previous week	471,200	384,104	82
Year ago	466,500	378,085	81
Two years ago	466,500	421,785	90
Five-year average			96
Ten-year average			89

* 4-day week.

DURUM PRODUCTS OUTPUT

Durum products output of mills reporting to THE Northwestern MILLER, in sacks, based on five-day week:

	5-day week capacity	Wkly. production	% of capacity
July 2-9*	167,250	120,463	72
Previous week	167,250	145,046	87
Year ago	156,500	105,933	68

	Crop year production
July 2-9,* 1961	120,463
July 3-10, 1960	130,769

* 4-day week.

Canadian Price Adjustments

Price adjustment figures announced by the Canadian Wheat Board and in effect July 19 were as follows: To U.K. and other European destinations via Canadian and U.S. Atlantic ports, also via St. Lawrence, Churchill, Canadian and U.S. Pacific ports, 4⅝¢ bu.; to other countries, excluding U.S. and territories, from Canadian and U.S. Atlantic ports, 15⅛¢ bu.; from St. Lawrence, Churchill, Canadian and U.S. Pacific ports, 14⅝¢ bu. The above adjustment prices apply to wheat milled in Western Canada. For wheat milled in the Bayport area the rate is ½¢ bu. less, while for wheat milled in the Humberstone area and in the Toronto area the rate is 1¢ bu. less. Wheat milled in the Montreal area is 2¢ bu. less. «

Production for July 2-9 is at the left; for July 9-16 appears here

WEEKLY FLOUR PRODUCTION, IN SACKS (CWT.)

Flour production in principal manufacturing areas by mills reporting currently to THE Northwestern MILLER with relationship of production to capacity and to the total estimated output of all mills in the U.S. expressed in percentages:

	July 9-16, 1961	*Previous week	July 10-17, 1960	July 11-18, 1959	July 12-19, 1958
Northwest	633,304	600,271	616,828	670,974	656,938
Southwest	1,362,168	1,250,468	1,365,221	1,387,081	1,303,044
Buffalo	594,977	527,618	534,388	508,171	576,455
Central and Southeast	641,062	465,291	602,133	596,447	576,600
Pacific Coast	388,759	328,863	417,269	422,573	269,212
Totals	3,620,270	3,172,511	3,535,839	3,585,246	3,382,249
Percentage of total U.S. output	78.6	78.6	75	75	75
Estimated total U.S. production	4,605,941	4,036,274			
Accumulated total this month	8,642,215	4,036,274			

*Revised.

	—Percentage of capacity operated in 5-day week—					Crop year flour production —July 1 to—	
	July 9-16, 1961	Prev. week	July 10-17, 1960	July 11-18, 1959	July 12-19, 1958	July 16, 1961	July 17, 1960
Northwest	85	81	85	92	98	1,233,575	1,281,764
Southwest	99	90	103	107	102	2,612,636	2,847,890
Buffalo	118	104	102	103	121	1,122,595	1,140,278
Central and S. E.	100	72	92	93	101	1,106,353	1,253,268
Pacific Coast	83	70	89	91	85	717,622	874,156
Totals	97	85	96	99	101	6,792,781	7,397,356

NORTHWEST

Minneapolis

	5-day week capacity	Flour output	% capacity
July 9-16	185,100	183,199	99
Previous week	185,100	129,416	70
Year ago	194,500	168,042	86
Two years ago	231,000	203,088	88
Five-year average			95
Ten-year average			96

Principal interior mills in Minnesota, including Duluth, St. Paul, North Dakota, Montana and Iowa:

	5-day week capacity	Flour output	% capacity
July 9-16	558,870	450,105	81
Previous week	558,870	470,855	84
Year ago	534,250	448,786	84
Two years ago	494,500	467,886	95
Five-year average			104
Ten-year average			95

CENTRAL AND SOUTHEASTERN

Mills in Illinois, Ohio, Michigan, Wisconsin, Indiana, Kentucky, North Carolina, Tennessee, Virginia, Georgia and eastern Missouri:

	5-day week capacity	Flour output	% capacity
July 9-16	642,700	641,062	100
Previous week	612,700	465,291	72
Year ago	651,450	602,133	92
Two years ago	643,750	596,447	93
Five-year average			94
Ten-year average			87

SOUTHWEST

Kansas City

	5-day week capacity	Flour output	% capacity
July 9-16	297,750	271,801	91
Previous week	297,750	193,274	65
Year ago	254,250	241,063	95
Two years ago	221,750	242,884	110
Five-year average			106
Ten-year average			99

Representative Mills, Outside of Kansas City (Including Wichita and Salina)

	5-day week capacity	Flour output	% capacity
July 9-16	1,084,395	1,090,367	101
Previous week	1,084,395	1,057,194	97
Year ago	1,067,250	1,124,158	105
Two years ago	1,068,800	1,144,197	107
Five-year average			108
Ten-year average			99

BUFFALO

	5-day week capacity	Flour output	% capacity
July 9-16	505,500	594,977	118
Previous week	505,500	527,618	104
Year ago	522,000	534,388	102
Two years ago	494,500	508,171	103
Five-year average			108
Ten-year average			104

Millfeed Production

Mills in the Northwest, Southwest and at Buffalo, representing 75% of the combined flour milling capacities of those areas, reported production of 48,882 tons of millfeed for July 9-16, compared with an output of 47,485 in the corresponding week a year ago. Production for the previous week of July 2-9 was 44,800, compared to 42,742 in the corresponding week of 1960.

PACIFIC COAST

Principal Mills on the Pacific Coast
California, Oregon and Washington Mills

	5-day week capacity	Flour output	% capacity
July 9-16	471,200	388,759	83
Previous week	471,200	328,863	70
Year ago	466,500	417,269	89
Two years ago	466,500	422,573	91
Five-year average			96
Ten-year average			89

DURUM PRODUCTS OUTPUT

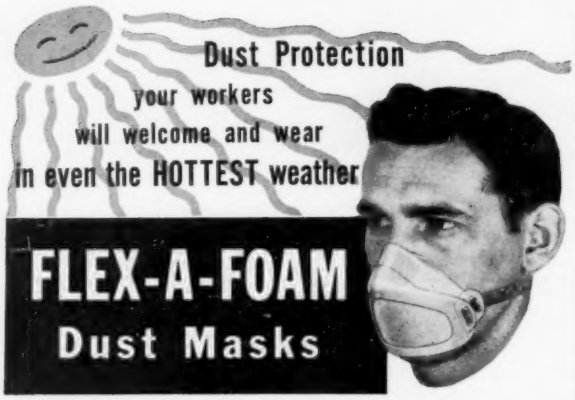
Durum products output of mills reporting to THE Northwestern MILLER, in sacks, based on five-day week:

	5-day week capacity	Wkly. production	% of capacity
July 9-16	167,250	129,626	78
Previous week	167,250	120,463	72
Year ago	156,500	101,282	65

	Crop year production
July 9-16, 1961	250,089
July 10-17, 1960	232,051

Obituary

MRS. EMMA FRANCES RICHTER, 97, member of a prominent pioneer baking family, July 5, in San Antonio, Texas. Mrs. Richter was the widow of William J. Richter, head of Richter Bakeries of Texas. She was born into the baking business, her father having moved to Texas after baking for the Union forces during the Civil War. Married in 1882, Mrs. Richter assisted her husband with opening of a bakery, helped it grow through several successive stages of expansion, until its operations today employ approximately 800 persons. Survivors include a daughter, 3 sons, 2 sisters, 2 brothers, 16 grandchildren, 53 great-grandchildren and 16 great-great-grandchildren. «



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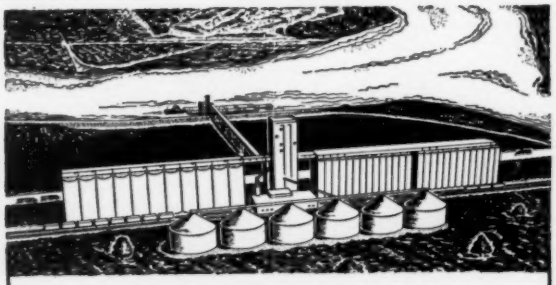

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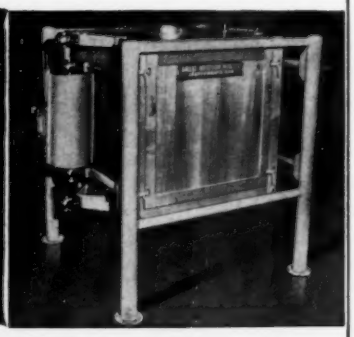

It's new. A brand new sanitary sifting machine, developed by the Great Western Manufacturing Company for rebolting flour before packers or bulk loading operation. Also used for screening any dry materials. Feed dresser, grader, etc. Can make up to 8 separations if required. The most perfectly balanced floor mounted sifter made.

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GREAT WESTERN Manufacturing Company

Ernest Schroeder **Leavenworth, Kansas** John E. Baker

New Toledo Grain Terminal Keeps Owners Too Busy to Celebrate

The new $2.5 million grain elevator of Mid-States Terminals, Inc., at Toledo has been put into operation, but the owners have been so busy it has been necessary to postpone indefinitely any fanfare or formal celebration.

Clayton Johnson, Toledo manager, reported that a formal opening was planned for the 250 ft. high structure, but pressure of the grain harvest has caused cancellation.

The elevator will hold 1.7 million bushels of grain. The firm also is renovating new office space near the elevator and will soon move from its present offices in the Toledo Board of Trade building.

Two ships can be accommodated simultaneously at the new elevator by means of a 2,200 ft. dock. The facilities also are near Mid-States' old elevator, which has a capacity of 400,000 bu. Together, the two elevators will permit loading of grain at the old location while ocean going vessels are filled at the same time at the new elevator. A chain conveyor system will carry grain between the two sites.

Loading at the new structure, which has a head house and 21 storage tanks, will be at a rate of 50,000 bu. an hour, with a roadway and a platform between the two elevators of sufficient size to hold 40 trucks. «

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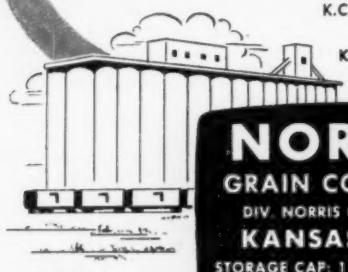

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- PEORIA
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- BURLINGTON, IOWA

WINNEPEG

• (Elevator Facilities)

Canadian Patent Granted for Do-Maker Equipment, Process

A Canadian patent has been granted covering the Do-Maker equipment and process for making bread dough continuously, reports Martin T. Tiernan, president of Baker Process Co., a division of Wallace & Tiernan, Inc., Belleville, N.J.

The patent has been granted to Dr. John C. Baker and assigned to Baker Process Co.

Mr. Tiernan also stated that the corresponding U.S. patent was issued in 1960, and that action presently is pending in a U.S. district court for an injunction restraining the American Machine & Foundry Co., New York, and Fischer Baking Co., Asbury Park, N.J., from infringing on this patent. «

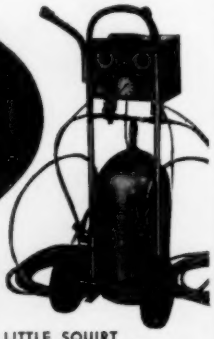
Verne Barbre Dies in Spokane

Verne J. Barbre, one of the organizers of the Washington Association of Wheat Growers, died recently in a hospital at Spokane. Mr. Barbre, 52, served as president of the association in 1947 and was a member of its board of directors four years. He also was instrumental in forming the Washington Wheat Commission and served two years as chairman of that group, along with being chairman of the committee which organized Western Wheat Associates.

Mr. Barbre was a member of the Washington State University board of regents. He received a degree from Spokane University in 1934 and took graduate work at Washington State, and Washington, Oregon and Northwestern universities. «

"The Squirt" Plan

CONTINUOUS INFESTATION CONTROL



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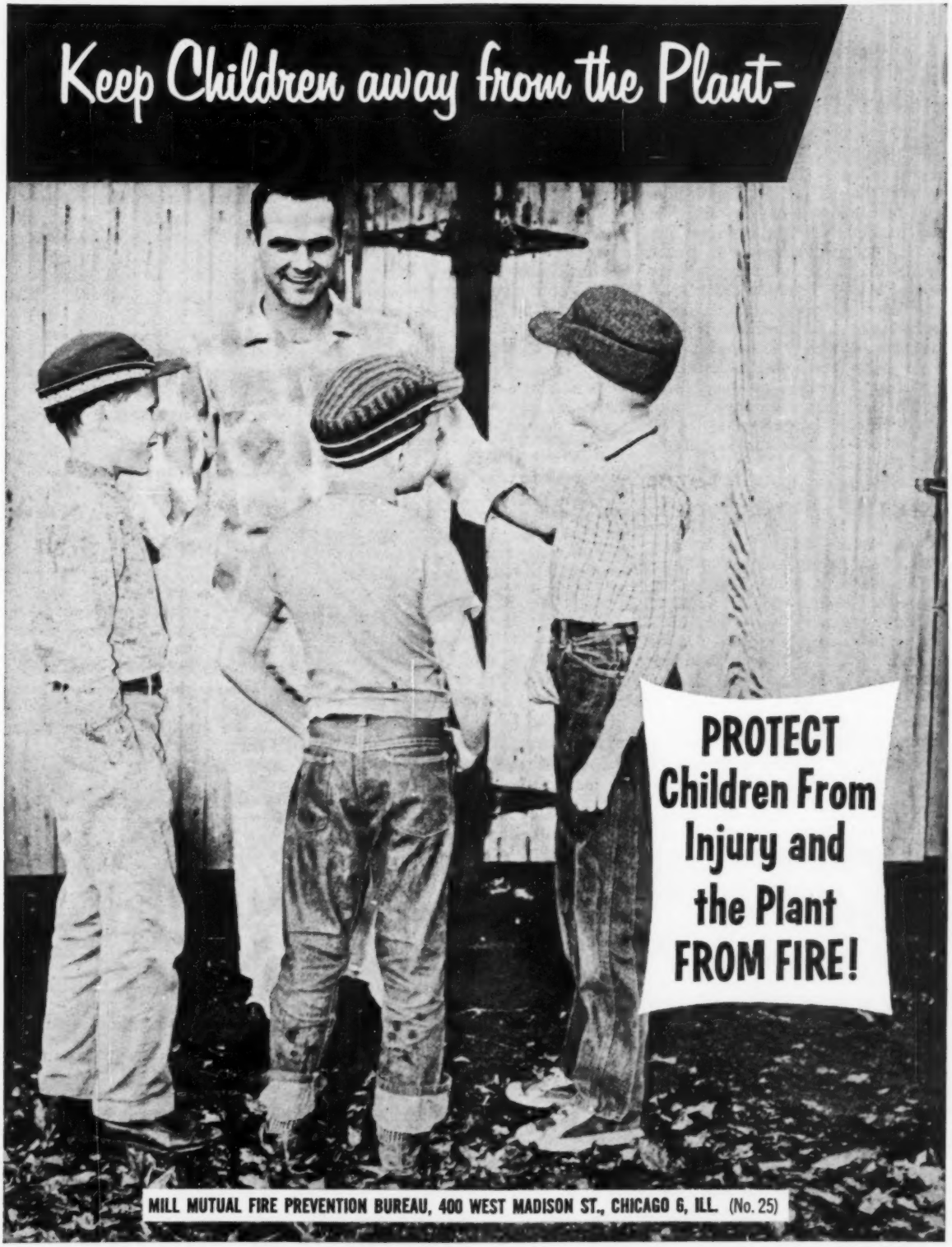
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Catching the Omnibus or Bust Brings Out Political, Professorial Tower of Babel

By F. C. Bisson
Chicago Correspondent

THE CALENDAR TELLS US that the New Frontier, a catch phrase refugee from last summer's political campaign, has now been staked-out for six months. During the first half of 1961, trails leading out in 18 different directions were blazed by the Chief Scout. Block houses were erected against the possibility of sporadic forays by roving bands of rugged individualists and economic royalists who still persist in the heresy that it is no sin to want to do business at a profit, and who have no stomach for the brand of "big government" which is a necessary concomitant to the establishment and perpetuation of the New Frontier.

Necessarily, these outposts have been left in the charge of lesser luminaries, such as Cabinet officers, with the understanding that those recently blazed trails leading to eventual 100% regimentation of the country's economy through the medium of a myriad of federal agencies, are to be broadened with little or no regard for the irreparable damage that is, in consequence, wreaked upon the national economy.

Unfortunately, some of the key selections appear to have left much to be desired, in that the occupants of some Cabinet seats have brought little or nothing at all to the job in the way of practical understanding of the problems at hand. Their previous experience leaves them poorly fitted to cope with the great responsibilities into which they have been catapulted by virtue of a hairline victory at the national ballot box. In a number of cases, availability has been greatly accelerated by inability to secure reelection in their own political bailiwick. The latter "revolting development" gives them a "lame duck" status which, per se, makes them ideal candidates for a federal appointment and its accompanying largesse.

Agriculture Chief

Such a situation developed in the selection of a secretary of agriculture. The occupant of that spot will spend far more money each year than any other member of the Cabinet, except those identified with the military. Insofar as is known, the only prior contact with any matter of agricultural character to which the selectee in this instance might point—but incidentally with not too large a degree of pride—was the "masterly" manner in which he handled a labor dispute a couple of years ago involving a meat packing firm located in a southern Minnesota city . . . by calling out the National Guard in his capacity as Governor of the state.

Instead of the National Guard being used to disperse those who were creating the disturbance by preventing the packing house personnel from entering their place of employment, the then Governor of Minnesota closed the plant completely. This caused heavy financial losses to the operators of the concern as well as resulting in spoilage of meat and meat products that were being processed at the time of the shutdown.

However, just as soon as the packing company could present its case in a court, justice, law and order once more prevailed. And it created a very red face in the gubernatorial mansion in St. Paul as the packing plant reopened and the National Guardsmen returned to the State Armory.

Now certainly no one would contend that, in his new capacity, the secretary of agriculture would be likely to petition another Cabinet officer to enforce punitive action against some wheat farmer who had figuratively thumbed his nose at the restrictive provisions of the marketing quota, and there is no implied reference here that he would.

However, under the terms of the Agricultural Act of 1961, there is

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Many of the firms appearing in this list are available to handle the importation of other products besides flour. Some specialize additionally in cereals, some in bakers' sundries and others in feed grains and ingredients. Most of them have connections in adjacent countries and are equipped to handle both import and export business on an extensive basis. For a list of recommended firms dealing in specific commodities or in specific countries write to THE Northwestern MILLER, P.O. Box No. 67, Minneapolis 40, Minn., U.S.A.

ENGLAND

H. Cohen & Co., Ltd.
Hambro House, Vintners' Place
LONDON, E.C. 4
Cable Address: Bortrite, London

Mardorf, Peach & Co., Ltd.
52, Mark Lane LONDON, E.C. 3
Cable Address: "Dorfeach," London

Pillman & Phillips, Ltd.
26, Corn Exchange Chambers
Seething Lane LONDON, E.C. 3
And at Bristol and Liverpool

Vaughan Thomas & Co., Ltd.
The Corn Exchange Building
52/57, Mark Lane LONDON, E.C. 3
Cable Address: "Avaumas," London

GERMANY

Einfuhrhandel Mannheim
Hans Werle
MANNHEIM/GERMANY, E2., 1-3
Cable Address: "Einfuhr" Telex 0463270

DENMARK

Brodr. Justesen
COPENHAGEN
Cable Address: "Justesens," Copenhagen

SCOTLAND

Farquhar Brothers
50 Wellington Street GLASGOW,C.2
Cable Address: "Glencairn," Glasgow

McConnell & Reid, Ltd.
19 Waterloo St. GLASGOW
Cable Address: "Marvel," Glasgow

D. T. Russell & Baird, Ltd.
106 Hope Street GLASGOW,C.2
Cable Address: "Delight"

HOLLAND

Bulsing & Heslenfeld N. V.
Established 1885
Damrak 20-22
AMSTERDAM (C)
Cable Address: "Heslenfeld," Amsterdam

STOLP & CO., LTD.
47-48 Damrak AMSTERDAM
Cable Address: "Cleo"

Gebrs. Van Den Bergh's N. V.
ROTTERDAM
Cables: Locomotion Rotterdam

N. V.
Algemeene Handel-en Industrie Maatschappy
"MEELUNIE"
Heerengracht 209 AMSTERDAM

N. V. Agentuur & Commissiehandel
v/h P. C. Vis & Co.
AMSTERDAM
Cable Address: "Visco"

Luchsinger, Meurs & Co.'s
Handelsmaatschappij, N.V.
AMSTERDAM—(C)
Cable Address: "Matluch"

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Postbox 945 AMSTERDAM C.
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so very much that is completely contrary to everything that one envisions when thinking of a free country, it is mighty good policy to know something about the political and economic philosophy of the individual who would sit on the throne in the all-powerful agricultural oligarchy which this pending legislation would create.

In this connection, farmers, grainmen, millers and bakers alike should never forget that if secretary of agriculture Orville L. Freeman had his way, Congress would have been virtually by-passed, once the bill was hustled through the national legislature with the speed of a guided missile, as the ex-Minnesota governor has urged in repeated personal appearances before both the House and Senate Agricultural Committees.

Prof. Willard Cochrane

Although the President's signature did appear on the two identical letters going to the presiding officers of the House and Senate that supposedly blueprinted his views on the kind of farm legislation needed, it is an open secret that the missive originated with the top echelon in the Department of Agriculture with the name of Prof. Willard Cochrane mentioned as chief architect.

Of course, it must be remembered that four of the pillars of this legislative monostrosity were lifted en masse from four other laws that had been on the nation's statute books at various times between 1934 and 1949. For that reason, ex-University of Minnesota pedant Cochrane must not be compelled to share all the blame.

Like many other professors, Dr. Cochrane has written a book. It is entitled "Farm Prices . . . Myth and Reality." He probably wrote some others, too, but the writer has it on excellent authority that the one mentioned affords the background for much of the material built into the bill now before Congress.

Boiling down the 189-page opus into one paragraph, it is evident that in his opinion, any hope that the farmer can solve the problem of bettering his economic status by "going it alone" is the "myth" of which he speaks. The solution, he considers, rests upon a policy which would restrict entry into production of agricultural commodities; further, that **this policy would adjust supplies to demand, year after year and commodity by commodity.** Apparently, that is what Prof. Cochrane looks upon as "reality" as opposed to "myth."

Toward the last page appears his main argument for a controlled farm economy. His contention is that "good and stable incomes" of management, the automobile and chemical industries, even the medical profession and many others, **materialize through the constant adjustment and readjustment of supplies to demand.** So, apparently, why not regimentation for agriculture?

Although the good professor and the writer both speak English, we use it differently. There is a vast gap between the board of directors of General Motors, for instance, making a decision to expand or curtail production of automobiles and trucks to meet changes in the demand situation on the one hand, while on the other a vote-hungry and very election-conscious politician at the head of USDA would be making equivalent decisions with regard to agricultural production. To be exampled in this connection would be the reduction of quotas on cranberries, oats, long staple cotton and iceberg lettuce, while increasing the production of spring wheat (but not winter wheat), lespedeza hay, rye and clover.

In the case of General Motors, only the stockholders' money is involved. Consequently, careful handling is a prime consideration. But in

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the other instance, with the 100% backing of the U.S. Treasury for any decision made by the head of USDA, who cares? It's only tax money. On more mature consideration, even Prof. Cochrane will have to admit that the motives of private industry on the one hand, and those of an American Commissar of Agriculture — and that's what the secretary would be under the Omnibus bill—on the other, are as far apart as the Poles.

And please don't laugh too hard if someone attempts to tell you that the secretary of agriculture would act "only in accordance with the counsel of his self-appointed advisory committees." That is strictly for the birds.

Before switching from the learned professor and his opus, the writer would like to call attention to the fact that on page 177 of the book, he mentions the medical profession as being among those private industries where the supply is adjusted arbitrarily to the demand. In other words, would he have us believe that when there is a lot of sickness, doctors are turned out of medical colleges on an assembly line basis? And when good health "rears its ugly head" do they slow down the diploma mill accordingly? Wonder what the American Medical Assn. thinks of this?

It so happens that Prof. Cochrane wrote his opus in 1957 and during that same year he also presented a paper before the sub-committee on agricultural policy (1st Session, 85th Congress). It bears the title of "The Case for Production Control Restated." In the light of his present association with USDA, the lead paragraph carries a most interesting premise:

The case for production control in American agriculture rests, not on the wishful thinking of farmers, the socialistic dreams of college professors, or the nefarious schemes of politicians; it rests upon the economic organization of American society.

Rolling off his typewriter apparently within the same 12 months, it is indeed difficult to reconcile one with the other . . . unless he wears two different hats and merely switches from one to the other, as the occasion or the audience requires.

But aside from an apparent Jekyll and Hyde aspect to his writings, the thing that really intrigues the writer —and he is certain the readers will be equally mystified—is the fact that the professor has such a low opinion of the efficacy of the members of his own profession, along with the "nefarious schemes of politicians" as he phrases it. How come he is now cohabiting with both? «

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WHERE THEY ARE MEETING

August

Aug. 7—Indiana Bakers Assn., annual golf party; Speedway Golf Course, Indianapolis; sec., F. A. Doll, 1941 E. 30th St., Indianapolis.

Aug. 19—District 14, Association of Operative Millers; Denver, Colo.; sec., John Streit, Wallace & Tiernan, Inc., Denver.

September

Sept. 8—District 4, Association of Operative Millers; Hotel Leamington, Minneapolis; sec., W. R. Carter, R. J. S. Carter Co., 1219 Flour Exchange, Minneapolis 1, Minn.

Sept. 8-9—District 7, Association of Operative Millers; Lake Murray Lodge, Ardmore, Okla.; sec., Henry H. Stark, Ross Machine & Mill Supply Co., Oklahoma City.

Sept. 15-16—District 2, Association of Operative Millers; Aladdin Hotel, Kansas City, Mo.; sec., George Smutny, Entoleter, Inc., Kansas City.

Sept. 17-18—Wisconsin Bakers Assn., annual convention; Plankinton House, Milwaukee, Wis.; sec., Fred H. Laufenburg, 6173 Plankinton Bldg., 161 W. Wisconsin Ave., Milwaukee 3.

Sept. 17-19—Southern Bakers Assn., annual production conference, Atlanta Biltmore Hotel, Atlanta, Ga.; sec., Benson L. Skelton, Henry Grady Bldg., 26 Cain St., N.W., Atlanta 3, Ga.

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Sept 23—District 8, Association of Operative Millers; Prudhommes Lodge, Vineland, Ont., Canada; sec., Roy F. Kehr, Kressilk Products, Inc., Depew, N.Y.

Sept. 23-24—Kansas Bakers Assn., fall meeting; Lassen Hotel, Wichita; sec., Warren Burke, 3232 Roanoke Rd., Kansas City, Mo.

Sept. 23-25—Southwest Bakers Assn., annual convention; Hilton Inn., El Paso, Texas; sec., Ralph Kilgore, P.O. Box 127, Albuquerque, N.M.

Sept. 23-26—New Jersey Bakers Board of Trade, anniversary convention and exhibition; Essex House Hotel, Newark, N.J.; sec., Michael Herzog, 48 Cleremont Ave., New Brunswick, N.J.

Sept. 24-26—Kentucky Master Bakers Assn., annual convention; Sheraton Gibson Hotel, Cincinnati, Ohio; sec., Al Wohlleb, 743 Loretto St., Louisville 11.

Sept. 29-30—District 9, Association of Operative Millers; Davenport Hotel, Spokane, Wash.; sec., Richard Schmidt, Centennial Mills, Inc., Spokane.

October

Oct. 4-7—National Bakery Suppliers Assn., annual meeting; Hotel Shelburne, Atlantic City, N.J.; sec., William Effron, Effron Bakery Supply Co., Poughkeepsie, N.Y.

Oct. 7-12—1961 Baking Industry Exposition; Convention Hall, Atlantic City, N.J.; sec.-treas., Harold Fiedler, 20 N. Wacker Drive, Chicago 6, Ill.

Oct. 13-14—District 6, Association of Operative Millers; Lowell, Mich.; sec., Oscar J. Nelson, King Milling Co., Lowell, Mich.

Oct. 20-21—Districts 3 and 5, Association of Operative Millers; Danville, Ill.; sec., Hollis Maun, Jr., M.M.C. Sales Corp., Dover, Ohio.

Oct. 21-22—Nebraska Bakers Assn., annual convention; Sheraton Fontenelle Hotel, Omaha, Neb.; sec., L. F. O'Konski, Jr., 1806 Chicago St., Omaha.

Oct. 27-28—District 11, Association of Operative Millers; Barringer Hotel, Charlotte, N.C.; sec., James N. Campbell, Sterwin Chemicals Inc., Charlotte, N.C.

November

Nov. 6—Connecticut Bakers Assn., annual convention; Roger Smith Hotel, Waterbury; sec., Charles Barr, 584 Campbell Ave., West Haven 16, Conn.

Nov. 13-14—Washingtun Association of Wheat Growers, annual convention; Walla Walla, Washington; sec., Geo. W. Johnson, Ritzville, Wash.

Nov. 13-14—New England Bakers Assn., fall convention; Sheraton-Plaza Hotel, Boston, Mass.; sec., William E. Bowman, 945 Great Plain Ave., Room 9, Needham 92, Mass.

Nov. 17-18—District 12, Association of Operative Millers; Newhouse Hotel, Salt Lake City, Utah; sec., Joseph J. Keiser, Salt Lake City Flour Mills, Salt Lake City.

December

Dec. 6-8—National Association of Wheat Growers, annual convention; Boise, Idaho; sec., Harold West, Idaho Wheat Growers Assn., Boise.

Dec. 9—District 2, Association of Operative Millers; Aladdin Hotel, Kansas City, Mo.; sec., George Smutny, Entoleter, Inc., Kansas City.

1962

January

Jan. 16-18—Hard Red Winter Wheat Workers, annual conference; Kellogg

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Center, Lincoln, Neb.; chairman, A. M. Schlehuber, Oklahoma State University, Dept. of Agronomy, Stillwater, Okla.

Jan. 28-30—Potomac States Bakers Assn., annual convention; Lord Baltimore Hotel, Baltimore, Md.; pres., Charles J. Schupp, 126 Mathieson Bldg., Baltimore 2.

Jan. 31—Potomac States Bakers Assn., post convention executive committee meeting; Lord Baltimore Hotel, Baltimore, Md.

February

Feb. 11-13—Pennsylvania Bakers Assn., annual convention; Bellevue Stratford Hotel, Philadelphia, Pa.; sec., Theo. Staab, 600 N. Third St., Harrisburg, Pa.

March

March 19-20—Grain and Feed Dealers National Assn., pre-convention secretaries' circle meetings; Denver-Hilton Hotel, Denver, Colo.; sec., Herbert L. Sharp, 401 Folger Bldg., 725 15th Street, Washington, D.C.

March 21-23—Grain and Feed Dealers National Assn., annual convention; Denver-Hilton Hotel, Denver, Colo.; sec., Herbert L. Sharp, 401 Folger Bldg., 725 15th Street, Washington, D.C.

April

April 9-11—Texas Bakers Assn., annual convention; Hotel Texas, Ft. Worth; sec., Guy Lichyter, 1121 National Building, Dallas 1, Texas.

April 26-28—Southern Bakers Assn., annual convention; Boca Raton Hotel, Boca Raton, Fla.; sec., Benson L. Skelton, Henry Grady Bldg., 26 Cain St., N.W., Atlanta 3, Ga.

April 29-May 2—Millers National Federation, annual convention; Hotel Olympic, Seattle, Wash.; sec., John J. Sherlock, 309 W. Jackson Blvd., Chicago 6.

April 29-May 2—Associated Retail Bakers of America, annual convention and exhibition; Bellevue-Stratford Hotel, Philadelphia, Pa.; sec., Miss Trudy Schurr, 731-735 W. Sheridan Rd., Chicago 13, Ill.

May

May 6-8—National Council of the Baking Industry, annual conference; Queen Elizabeth Hotel, Montreal, P.Q., Canada; dir., R. H. Ackert, 4 N. Sherbourne St., Suite 105, Toronto 5, Ont., Canada.

May 14-17—Association of Operative Millers, annual technical conference and trade show; Denver-Hilton Hotel, Denver, Colo.; exec. vice president, Donald S. Eber, 639 Board of Trade Bldg., Kansas City 5, Mo.

CALENDAR FOR 1961-62

JULY

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CANADIAN COMMENTARY

Despite generous rains over most crop lands east of line running north from International Peace Gardens on North Dakota-Manitoba boundary, deterioration continues over very large percentage of western Canada's drouth-ravaged farm lands. Less than a 50% crop will be common in many districts, with Saskatchewan suffering by far the largest area of damage.

In Alberta, drouth confined chiefly to southern third of province. In Saskatchewan it occupies all but about 20% of the acreage, and practically all of this is in northwest. Until rains came second week of July in eastern half of Manitoba, drouth was all-embracing in that province.

Reporting on drouth, Searle Grain Co., Ltd., states that many seem to regard present dry conditions as recent development which began last fall. This is not the case, Searle points out, adding that there has been gradual but persistent build-up during past five years or so, with declining reserves at depth and general lowering of water table over wide areas.

Searle observation is, therefore, that rather than just entering dry cycle of years, areas affected may in fact be approaching end of such a cycle as experienced in disastrous year of 1937. Company also comments that it is certain great deal of rainfall will be needed to replenish sub-soil moisture lost in recent years and to restore water levels generally in areas involved. Moreover, unless ample precipitation occurs this fall, the West will be in even more precarious position in spring of 1962, report concludes.

Farmers urged to cut grain crops for feed that will not be economical to harvest for grain. Head office of Prairie Farm Assistance Act, Regina, has announced that acreage from which such crops are cut will be eligible for PFAA crop loss payments. Crop insurance payments in test areas of Manitoba, Saskatchewan will be heavy.

●

Serious Shortage Of Durum Looms

Canadian wheat used for macaroni products already in short supply and none apparently being offered for export at present, although No. 2 C. W. amber durum under Class 2 was quoted July 14 at $2.81⅜ bu. (At beginning of July price was $2.08; in mid-June it was $2.)

Present visible supply of durum grades is less than 5 million bushels, and heaviest acreage planted for harvest this year was in main drouth area of southern Saskatchewan. Although too early to predict this year's durum yields, output almost certain to be less than 50% of long-time average yield. Very little durum being held on farms because open delivery privileges, climbing prices now encouraging movement to country elevators. Canadian Wheat Board, apparently as result of anticipated shortage, has discontinued quoting durum wheat for export until further notice.

●

Conference Covers Crop Prospects

Alvin Hamilton, federal minister of agriculture, in Winnipeg recently to confer with Canadian Wheat Board officials on general crop prospects and need for retaining feed supplies until requirements are determined. Minister also expressed concern over rising prices of oats, barley for feed. Under Wheat Board Act, it is intended that

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board must sell for highest price possible, but with western farmers likely to be a big customer this year, they will suffer if prices continue to advance.

Mr. Hamilton said steps would be taken to stop soaring grain prices. On subject of speculation, he said, "We have no objection to legitimate hedging, but too many enthusiastic amateurs in the market could cause havoc."

Some in the trade feel authorities might request increase in margins on futures buying, others think limits in daily fluctuations may be reduced. Most sections of the trade without comment at all.

●

W. Scott Neal Given Honorary Position

W. Scott Neal, secretary of McCabe Grain Co., Ltd., Winnipeg, elected honorary president of Winnipeg Junior Chamber of Commerce. He headed up senior Chamber of Commerce in 1958-59.

●

Bread Price Raised In Winnipeg

Toastmaster Sales, Ltd., raised bread price in Winnipeg one cent per pound loaf July 17, with other three bakeries about to follow suit. Trend is expected across Canada, result of higher wages, flour costs. In Winnipeg, one-pound loaf of sliced bread now sells for 20¢. «

Ronald Ramsay Plans Retirement from Bemis

Ronald Ramsay, secretary of Bemis Bro. Bag Co., will retire July 31, bringing to a close a 35-year career during which he served principally as one of Bemis' top administrative and fiscal authorities. Mr. Ramsay's successor is to be announced at a later date.

The retiring executive joined Bemis in 1926 as an accountant in the St. Louis general offices and has remained headquartered there. He travelled two years as an auditor, became assistant secretary and assistant treasurer in 1937, was secretary and comptroller from 1953 to 1955, and served as secretary from 1955.

Mr. Ramsay, originally from Scotland, was educated at Harris Academy in Dundee, did clerical work in Dundee, served in Belgium and France during World War I, and became office manager for Howrah Mills Co., Ltd., Howrah, India, following the war. He resigned from Howrah to join Bemis Bro. «

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Harry Bullis Honored

Harry A. Bullis, retired chairman of the board of General Mills, Inc., with a vast array of honors already bestowed upon him, has been given another. Mr. Bullis was selected as the first honorary marshal for the Minneapolis Aquatennial. The position has been set up to recognize civic leadership in various areas of public service. «

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INDEX of ADVERTISERS

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Abilene Flour Mills Co. 73
Acme-Evans Co., Inc. 37
Air-O-Flex .....
Allis-Chalmers Mfg. Co. .....
Amber Milling Division .....
American Bakers Assn. .....
American Cyanamid Co. 17
American Flours Co. .....
American Molasses (Nulomoline Div.) .....
Anheuser-Busch, Inc. .....
Appraisal Service Co., Inc. .. 54
Association of Mill & Elevator Mutual Insurance Companies 65
Atkinson Milling Co. 73

Baker Perkins, Inc. .....
Bartlett & Co. 62
Baxter, A. E., Engineering Co. 73
Bay State Milling Co. .....
Bemis Bro. Bag Co. 25
Blake, J. H. 72
Blodgett, Frank H., Inc. 73
Brey & Sharpless .....
Brolite Co. .....
Buhler Mills, Inc. .....
Buhler Corporation, The 47
Bulsing & Hestenfeld 67
Burke, E. J., & Co. .....

Cahokia Flour Co. .....
Cargill, Inc. 15
Centennial Mills, Inc. 64
Chambers, John C., Co. 73
Charlick, Wm., Ltd. .....
Chase Bag Co. 59
Chatfield & Woods Sack Co. 73
Checkerboard Grain Co. 44
Church & Dwight Co., Inc. .. 27
Clupak, Inc. 3
Cohen, Felix, N. V. .....
Cohen, H. 67
Coleman, David 72
Colorado Milling & Elev. Co. 72
Commander Larabee Mlg. Co. 38, 39
Consolidated Flour Mills Co. 40
Continental Grain Co. 49

Dannen Mills, Inc. 53
Day Company .....
Dunwoody Industrial Inst. ...

Eastern Canada Flour Mills, Ltd. .....
Eckhart Milling Co. .....
Einfuhrhandel Mannheim 67
Elliott Service Co. .....
Entoleter, Inc., a Subsidiary of American Mfg. Co., Inc. ..
Evans Milling Co., Inc. .....

Fant Milling Co. .....
Farquhar Bros. 67
Ferguson Fumigants, Inc. ... 64
First Natl. Bank .....
Fisher Flouring Mills Co. ... 48
Flexo Products, Inc. 62
Flour Mills of America 66
Fluidizer Co., The .....
Food Mach. & Chem. Co. ...
Forster Mfg. Co. .....
Fort Garry Milling Co., Ltd. 71
Franco, Francis M. .....
Frank, Leo, Co. .....
Frontier Chemical Co. .....
Fuller Co. .....

G-F Elevator Co. 63
Garvey Elevators, Inc. .....
General American Transportation Corp. .....
General Mills, Inc. 76
Gillespie Bros., Ltd. .....
Globe Milling Co. .....
Great Star Flour Mills, Ltd...
Great Western Mfg. Co. 62
Green's Milling Co. .....
Grippeling & Verkley 67
Gump, B. F. 44

Harris, Upham & Co. 69
Hoffmann-La Roche, Inc. 23
Holland Engraving Co. 72
Hollywood Termite Control Co. .....
Hotel Jefferson .....
Hotel Sherman .....
Hubbard Milling Co. .....
Hunter Milling Co. 72

Imbs, J. F., Milling Co. ....
Industrial Overseas Tech Corp. 6
International Mlg. Co. 2
Ismert-Hincke Milling Co. ... 54

J-T Elevator Co. .....
Jackson, Gilbert, Co., Inc. ..
Jennison, W. J., Co. .....
Justesen, Brodr. 67

Kansas Milling Co. 54
Kelly-Erickson-Jones Co. ....
Kelly, William, Milling Co...
Kent, Percy, Bag Co. .....
Kimpton, W. S., & Sons ...
King Milling Co. .....
Knappen Milling Co. .....
Koerner, John E., & Co., Inc..

La Grange Mills .....
Lake of the Woods Mlg. Co., Ltd. 70
Lexington Mill & Elevator Co.
Lincoln-CGF Grain Co. .....
Luchsinger, Meurs & Co. 67
Lykes Bros. Steamship Co. ..
Lyon & Greenleaf Co., The .. 54

McCabe Grain Co. .....
McConnell & Reid, Ltd. 67
Maple Leaf Mills, Ltd. 71
Mardorf, Peach & Co., Ltd. .. 67
Marine Trust Co. of West New York .....
Marsh & McLennan, Inc. .....
Meelunie, N. V., Amsterdam . 67
Mennel Milling Co. .....
Merck & Co., Inc. .....
MIAG Northamerica, Inc. 13
Miller Publishing Co., The .. 20
Miner-Hillard Milling Co. ....
Monsanto Chem. Co. .....
Montana Flour Mills Co. ....
Montgomery Co., The .....
Moore-Lowry Flour Mills, Inc.
Morrison Milling Co. .....
Morten Milling Co. 29

National Yeast Corp. .....
Nebraska Grain Imp. Assn. ..
New Era Milling Co. .....
Norenberg & Belsheim .....
Norris Grain Co. 64
North American Plywood ...
North Dakota Mill & Elevator
Norton, Willis, Co. .....
Nor-Vell, Inc. 34
Novadel Flour Service Division Wallace & Tiernan Inc. ... 75

Ocrim Milling Engineering Works 6
Ogilvie Flour Mills Co., Ltd. 69
Olin Mathieson Chem. Corp. 63
Osieck & Co. .....
Owens-Illinois Glass Co

Particle Research Labs. .....
Patchin Appraisals 72
Paul, F. H., & Stein Bros., Inc. 68
Peavey, F. H., & Co. 30
Penn, William, Flour Co. 72
Pfizer, Chas., & Co., Inc. 41
Pillman & Phillips, Ltd. 67
Pillsbury Co., The .....
Prater Pulverizer Co. .....
Pulverizer Machinery Div. ... 19

Quaker Oats Co. .....

Red Wing Milling Co. 44
Robin Hood Flour Mills, Ltd.
Robinson, Thomas, & Son, Ltd. 33
Rodney Milling Co. .....
Ross Machine & Mill Supply.
Runciman Milling Co. .....
Russell, D. T., & Baird, Ltd. . 67
Russell Miller-King Midas Mills 4

St. Louis Flour Mills .....
Savage, W. J., Co. 63
Seedburo Equip. Co. 34
Scott, Mungo, Ltd. .....
Screw Conveyor Corp. .....
Sheridan Flouring Mills, Inc..
Shippers' Car Line Div. ACF Industries .....
Simon-Carter Co. 50, 51
Simonds-Shields-Theis Grain Co. .....
Smico, Inc. .....
Smith, J. Allen, & Co., Inc...
Smith, Sidney, Flour, Feed & Grain, Ltd. .....
Springfield Milling Corp. .....
Standard Brands, Inc. .....
Standard Milling Co. .....
Star of the West Milling Co..
Sterwin Chemicals, Inc. 35
Stolp & Co., Ltd. 67
Stratton-Theis Grain Co. 48
Sturtevant Mill Co. 31
Superior Div. of Daffin Corp

Tennant & Hoyt Co. 64
Thomas, Vaughan, & Co., Ltd. 67
Tidewater Grain Co. .....
Tobler, Ernst & Traber, Inc...
Twin City Machine Co. 44

Udy Analyzer Co. 54
Uhlmann Grain Co. 37
Union Special Machine Co. .. 45
United Grain Growers, Ltd. .. 70
Universal Mlg. & Mach. Co...
Urban, George, Milling Co. . 44

Van Den Bergh, Gebroeders . 67
Van Dusen Harrington Co. ..
Van Waltbeek's Handelmaatschappij N. V...
Victor Chemical Works .....
Vis, P. C., & Co. 67

Wall-Rogalsky Mlg. Co. .....
Wallace & Tiernan Inc. 75
Weller, S. T., Co. .....
Westcentral Co-op Grain Co. 68
Western Canada Flour Mills Co., Ltd. .....
Western Waterproofing Co...
West Virginia Pulp & Paper Co. .....
Wichita Flour Mills, Inc. ....
Williams Bros. Co. .....
Williams, H. R., Mill Supply Co. 37
Willis, K. I. 73
Witsenburg, M., Jr., N. V. .. 67
Wolcott & Lincoln, Inc. 54

GRIST of GRINS

A reporter from a big city newspaper stopped to visit a friend who ran a little country weekly.

He asked his friend, "How can you keep up your circulation in a town where everyone already knows what everyone else is doing?"

The editor grinned, then answered: "They know what everyone's doing, all right, but they read the paper to see who's been caught at it!"

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Neighbor to small dirty boys: "I've heard of the soil bank, but aren't you overdrawn?"

◆ ◆ ◆

An American plane developed engine trouble flying over the West Zone of Germany, forcing the crew to bail out. So quickly did they leave that they forgot to take their two dog mascots.

Somehow the plane headed pilotless into the Russian sector and made a perfect landing on a meadow where it was surrounded by Red soldiers.

Moscow leaders are still trying to figure out how the Americans train dogs to fly airplanes.

◆ ◆ ◆

You're only young once. After that you need some other excuse.

◆ ◆ ◆

The door was falling off the hinges, but finally Pops got around to fixing it. "Say, Junior," he called, "get me a screwdriver, will you?"

A few minutes later, Junior returned.

"Gee, Pops," he said apologetically, "I've got the orange juice, but we're all out of vodka."

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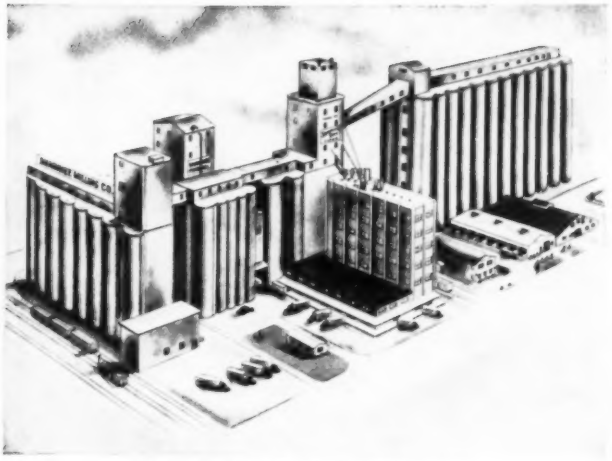
A child: A creature who stands half-way between an adult and a television set.



▲ Shawnee Milling Co., Shawnee, Oklahoma
5,100 sacks wheat flour; 1,200 sacks corn meal
250 tons mixed feed; mill elevator storage 2,500,000 bu.

▲ Okeene Milling Co., Okeene, Oklahoma
2,200 sacks wheat flour;
Mill elevator storage 650,000 bu.

SHAWNEE MILLING COMPANY SCALPS MILLING COSTS

With W&T Flour Treatment

At Shawnee Milling, mill managers control some of their costs with dependable Wallace & Tiernan equipment and processes. They know that quality, cost, and good running time go hand in hand—that they can depend upon W&T to keep its bleaching and maturing processes running—that stoppages won't turn flour into the "dirty" bin for costly reblending.

And Shawnee uses W&T's flour treatment not only for dependability but for performance:

- Dyox® for fresh, sharp chlorine dioxide gas, made as it is used... precisely metered as a gas not a liquid.
- Novadelox® for best color removal, ease of application, consistent results.
- Beta Chlora® machines for pinpoint pH control with one, easily-read setting.

Shawnee Milling Company is only one of the many milling companies using W&T flour treatment. If your mill is not one of these investigate the advantages of Wallace & Tiernan's complete flour service.

▲ Dyox machine for making and metering chlorine dioxide gas. The gas is immediately available without waste.

▲ Novadelox feeders with blowing arrangement. Note drum of Novadelox bleach in foreground.

NOVADEL FLOUR SERVICE DIVISION
WALLACE & TIERNAN INCORPORATED
25 MAIN STREET, BELLEVILLE 9, NEW JERSEY
REPRESENTATIVES IN PRINCIPAL CITIES

Sweet Rolls from the bakery are still what makes it Sunday breakfast

There's a thrill to the variety of the sweet rolls on the plate, and the variety still comes from the bakery. From the delicious moment of decision in the fragrance of the bakery itself, to the Sunday morning pleasure of selection from the plate . . . you still can't beat baked goods from your baker.

The baker's part in the life of the community has been an important one since bread began to be sold, and will continue to be just so important, as long as there is good flour to bake with, good food to make from it . . . and Sunday mornings.

Good eating will always begin with Bread

General Mills